Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the matter of	)	
	)	
Petition for a Declaratory Ruling That	)	
AT&T's Method of Delivering Public,	)	MB Docket No. _____
Educational and Government Access Channels	)	
Over Its U-verse System Is Contrary to the	)	
Communications Act of 1934, as amended,	)	
and Applicable Commission Rules	)	

PETITION FOR DECLARATORY RULING OF ALLIANCE FOR COMMUNITY MEDIA, ALLIANCE FOR COMMUNICATIONS DEMOCRACY, SACRAMENTO (CALIFORNIA) METROPOLITAN CABLE TELEVISION COMMISSION, FOOTHILL-DE ANZA COMMUNITY COLLEGE DISTRICT, CALIFORNIA, CHICAGO ACCESS NETWORK TELEVISION, ILLINOIS NATOA, MANHATTAN (NEW YORK) NEIGHBORHOOD NETWORK, BRONXNET (NY), BROOKLYN (NY) COMMUNITY ACCESS TELEVISION, CITY OF RALEIGH, NORTH CAROLINA, ACM WESTERN REGION, ACM CENTRAL STATES REGION, ACM MIDWEST REGION, ACM NORTHWEST REGION, ACM NORTHEAST REGION, AND SEATOA

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January 30, 2009

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SUMMARY

AT&T's method of delivering PEG channel programming to its U-verse video subscribers, its "PEG product," results in inferior PEG channel accessibility, functionality and signal quality to that afforded all other basic (and virtually all non-basic) video channels on AT&T's U-verse systems. AT&T's U-verse product also does not pass through closed captioning contained in PEG programming.

Petitioners ask the Commission to declare the following with respect to AT&T's method of delivering PEG programming over its U-verse system:

1. AT&T's systematic discrimination against PEG programming in terms of accessibility, functionality, and signal quality violates Sections 611, 623 and 624(e) of the Communications Act and FCC rules and policies by discriminating against PEG channels and by exercising impermissible editorial control over PEG channel capacity.

2. AT&T's "PEG product" fails to provide PEG programmers with "channels" as defined in Section 602(4) of the Cable Act and thus violates Section 611 of the Cable Act by failing to provide "channel capacity" for PEG use.

3. The closed captioning pass-through requirements imposed on cable operators and VPDs by §§ 76.606 and 79.1(c) of the Commission's rules are absolute and are not qualified by Section 79.1(e)(2).

AT&T's "PEG Product"

What AT&T refers to as its "PEG product" differs fundamentally from other video programming provided on AT&T U-verse's basic video programming tier. When a subscriber to AT&T's U-verse multichannel video service wishes to select a particular broadcast or commercial cable programming channel, the process is virtually indistinguishable from that of a traditional incumbent operator cable system. If, however, an AT&T U-verse subscriber wishes to locate and watch local programming of a PEG channel from the community where he or she lives, the process is much more time-consuming and complicated. The subscriber will find no individual local PEG channels listed on the AT&T channel guide. At most, AT&T's onscreen guide may show a generic listing of "Local Government Education and Public Access" assigned to "Channel 99" of the U-verse lineup.

Channel 99 on AT&T's system is not a video channel at all. Instead, clicking "99" on the remote activates the downloading of an Internet-mediated application that AT&T sometimes refers to as its "PEG product." The subscriber first receives a generic screen entitled "Local Government Education and Public Access." The subscriber must then press "OK," which initiates the loading of AT&T's "PEG product" application. Unlike retrieving any broadcast or commercial cable programming channel, the loading of AT&T's PEG application can take anywhere from 8 seconds to over a minute. Once AT&T's PEG product application is loaded, the subscriber then receives a menu listing

the names of all of the various communities in the DMA where the U-verse system is located. The subscriber must scroll down the list of communities to find his/her selected community and click on it. After yet another delay, the subscriber is then presented with yet another menu of the PEG channels in the selected community. The subscriber must again scroll down and find and select the desired PEG access channel. The subscriber must hit "OK" to enlarge the PEG channel's picture a full screen – the equivalent of zooming to full screen when watching video on a computer. After the subscriber has taken these many steps just to retrieve a particular PEG channel, additional problems occur both in viewing PEG programming once it is finally retrieved and when the subscriber tries to channel surf between PEG and other channels.

AT&T's PEG product is incapable of passing through closed captioning in PEG programming. Instead, AT&T forces PEG programmers to have their programming partially obscured by "always on" open captioning, if they wish to deliver captioned programming at all. Also unlike broadcast and commercial cable channels on AT&T's U-verse system, AT&T's PEG product removes or disables secondary audio program ("SAP") capability so SAP in PEG programming is not passed through. AT&T's subscribers cannot record PEG programming using AT&T's own DVR capability or TiVo, as they can with broadcast and commercial cable channels. At most, U-verse subscribers may only record PEG programming manually with their own equipment while their TV set is tuned to the desired PEG programming at the correct time; they *cannot* program their recorder to record PEG programming they are not watching for later viewing. Thus, AT&T's PEG product denies PEG viewers the basic time-shifting DVR capability that they enjoy with broadcast or commercial cable channels. Moreover, channel surfing between PEG and other channels on AT&T's U-verse system is time-consuming and cumbersome – the very antithesis of what viewers expect and demand when channel surfing.

AT&T describes its PEG product as "an application that integrates content via a secure Internet-based link" for "streaming video," an application that AT&T "hope[s]" to use in the future for unspecified "new" or "specialized commercial video content sources." But this "application," which AT&T's own description characterizes as currently unique to PEG, is apparently *not* believed by AT&T, or by broadcast or commercial cable channel programmers, to be adequate for those video programmers. The reason is obvious: AT&T does not use this "application" to deliver these other programmers' programming.

If the FCC were to allow a large provider like AT&T to implement a design that systematically discriminates against PEG and thus fails to comply with legal requirements, that would simply encourage all other providers to follow suit and discriminate against PEG as well.

AT&T's PEG Product Unlawfully Discriminates Against, and Exercises Editorial Control Over, PEG Programming

AT&T's PEG product violates longstanding Commission principles: It singles out PEG programming for discriminatory and uniquely inferior treatment, in terms of

accessibility, functionality and signal quality vis-à-vis other programming on the AT&T U-verse system's basic, and most non-basic, tiers. The Commission should therefore rule in no uncertain terms that AT&T's PEG product improperly discriminates against PEG programming in violation of the Act and Commission rules and policies.

AT&T's outright discrimination against PEG programming and PEG channels is directly contrary to Congress' expressed intent in the 1984 and 1992 Cable Acts, as well as longstanding Commission policy concerning PEG signal quality requirements. The principle that PEG is not to be discriminated against vis-à-vis commercial channels was reaffirmed by Congress when it enacted the 1992 Cable Act, where Congress explicitly stated its intent that cable operators may *not* discriminate against PEG channels and that "*these channels are available to all community members on a nondiscriminatory basis.*"

The roots of this non-discrimination principle with respect to PEG extend beyond the language and legislative history of the 1984 and 1992 Cable Acts to the longstanding decisions and policies of the Commission itself. For over twenty years, the Commission has made clear its view that cable operators may *not* discriminate against PEG (or for the matter, between any classes of downstream video programming) in terms of signal quality. The Media Bureau has recently reaffirmed that cable operators may not discriminate against PEG vis-à-vis other basic tier channels in terms of accessibility. Yet that is precisely what AT&T's PEG product does.

AT&T's PEG product also violates Section 611(e)'s prohibition against a cable operator's "exercise [of] any editorial control over any [PEG] use of channel capacity." By removing or disabling closed captioning, SAP and other content-related information in PEG programming, AT&T is impermissibly exercising editorial control over PEG channel capacity by "editing out" part of the content of PEG programming.

AT&T's PEG Product Fails to Provide PEG Channel Capacity as Required by the Act

AT&T's PEG product fails to provide PEG "channel capacity" within the meaning of Section 611, because AT&T's PEG product does not provide PEG users with "channels" within the meaning of Section 602(4) of the Act. To provide the PEG "channel capacity" required by Section 611, AT&T's PEG product must provide for each PEG channel it is required to carry the IPTV equivalent of a "channel" – in other words, what AT&T provides to local broadcast stations and commercial cable programming channels on its U-verse system. AT&T's PEG product does not do that.

FCC Rules Require Cable Operators and VPDs to Pass Through Closed Captioning in PEG Programming Intact to Viewers

Although AT&T's U-verse system passes through closed captioning in television broadcast and commercial cable programming delivered to it, it is not able to pass through to viewers closed captioning in any PEG programming delivered to AT&T with closed captioning. AT&T instead can only open caption PEG programming. "Open captioning" is "always-on" captioning that constantly blocks a portion of the picture despite the viewers' needs or desires with respect to captioning.

The Commission should declare that the Act and Commission rules require cable operators and VPDs to deliver intact to viewers all closed captioning in PEG programs that such operators and VPDs receive in closed captioning from PEG programmers. Cable operators are required to pass through intact to viewers the closed captioning of any programming, including PEG programming, received with closed captioning. The same is true of non-cable operator VPDs subject solely to Part 79. The § 79.1(e)(2) "open captioning" exception allows a programmer to "use" open captioning rather than closed captioning in its programming, and it also allows a VPD to pass through in open captioning programming *that it receives* in open captioning. It does *not*, however, absolve a VPD from its § 79.1(c) obligation to pass through closed captioning in programming that *it receives in closed captioning*.

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PETITION FOR DECLARATORY RULING

Pursuant to Sections 1.2 and 76.7 of the Commission's rules and 5 U.S.C. § 554(e), petitioners, the Alliance for Community Media ("ACM"), the Alliance for Communications Democracy ("ACD"), the Sacramento (California) Metropolitan Cable Television Commission ("SMCTC"), the Foothill-De Anza Community College District, California ("De Anza"), Chicago Access Network Television ("CAN TV"), the Illinois Chapter of the National Association of Telecommunications Officers and Advisors ("Illinois NATOA"), the Manhattan (New York) Neighborhood Network ("MNN"), BronxNet (New York), Brooklyn (New York) Community Access Television ("BCAT"), the City of Raleigh, North Carolina ("Raleigh"), the ACM Western Region, the ACM Central States Region, the ACM Midwest Region, the ACM Northwest Region, the ACM Northeast Region, and the SouthEast Association of Telecommunications Officers and Advisors ("SEATOA") (collectively, "PEG Petitioners"), request that the Commission issue a Declaratory Ruling that AT&T's current method of carrying

and distributing public, educational and governmental ("PEG") access channels over its U-verse systems violates the Cable Communications Policy Act of 1984, as amended, 47 U.S.C. §§ 521 *et seq.* ("1984 Cable Act" or "Cable Act") and Commission rules, and that the closed captioning pass-through obligations of 47 C.F.R. §§ 76.606 and 79.1(c) are absolute.

Specifically, PEG Petitioners ask that the Commission rule that (1) AT&T's method of delivering PEG channels over its U-verse systems unlawfully exercises editorial control over, and singles out and discriminates against, PEG channels, in terms of viewer accessibility, signal quality, and functionality, vis-à-vis commercial video channels carried on AT&T's basic tier, contrary to 47 U.S.C. §§ 531, 543 & 544(e) and Commission rules and decisions concerning PEG channels; (2) AT&T's method of delivering PEG channels impermissibly fails to furnish PEG access programmers "channel" capacity within the meaning of 47 U.S.C. §§ 522(4), 531 & 541(a)(4)(B), and applicable FCC rules and decisions; and (3) the obligation of a cable operator under 47 C.F.R. § 76.606, and of a video programmer distributor ("VPD") under 47 C.F.R. § 79.1(c), to pass through intact to viewers closed captioning in programming that it receives in closed captioning is absolute and is not subject to the open captioning provision of 47 C.F.R. § 79.1(e)(2).

PETITIONERS' INTERESTS

Petitioner ACM is a national non-profit member organization representing over 3,000 PEG access organizations and community media centers, and PEG programmers and viewers throughout the nation. Those PEG organizations and centers include more than 1.2 million volunteers and 250,000 community groups that provide PEG access television programming in local communities across the United States.

Petitioner ACD is a national membership organization of non-profit PEG access corporations that supports efforts to protect the rights of the public to speak via cable television, and promotes the availability of the widest possible diversity of information sources and services to the public. The organizations represented by ACM and ACD have helped thousands of members of the public, educational institutions, and local governments make use of PEG channels that have been established in their communities pursuant to franchise agreements and federal law, 47 U.S.C. § 531. A number of PEG access organizations and community media centers adversely affected by AT&T's U-verse treatment of PEG channels are ACM and ACD members.

Petitioner SMCTC is a joint powers agency whose member agencies are seven local governments in the Sacramento, California, area. There are seven PEG channels in the Sacramento area. SMCTC is responsible for administering cable franchises in Sacramento County. SMCTC also operates the local government access channel, Metro Cable. In addition, SMCTC administers other PEG channel capacity and provides funding support for the Sacramento area's public and educational access channels: Access Sacramento, the Sacramento Educational Consortium ("SECC"), KVIE Cable 7, and Religious Community Television. AT&T has obtained a video franchise from the California Public Utilities Commission for SMCTC's area and has begun offering its U-verse multichannel video service in the area. California law requires AT&T to carry the SMCTC PEG access channels on its U-verse system. Cal. Util. Code §§ 5870(a) & (b). Several of the SMCTC PEG channels deliver closed captioned programming: All government meetings cablecast on Metro Cable, the government access channel operated by SMCTC, are closed captioned. Moreover, about 60% of the programming of SECC, which operates two educational access channels and also furnishes educational

programming from local colleges that runs on two other access channels, is closed captioned. In addition, Channel 7, an access channel programmed by KVIE-TV, the local PBS affiliate, is closed captioned. Two of SMCTC's incumbent cable operators, Comcast and SureWest Broadband, pass through all closed captioned SMCTC PEG programming to subscribers intact. As explained below, AT&T's U-verse system does not. Since 1987, Access Sacramento has produced a community radio program, "The Voice of Sacramento," that is distributed 24 hours a day, seven days a week via a Second Audio Programming ("SAP") signal on Access Sacramento's channel 17. KPFA-FM's signal is also carried via SAP on Access Sacramento's channel 18. SAP carriage of Access Sacramento's radio signals has been a critical part of its service for more than 15 years.

Petitioner De Anza operates one of the educational access channels in the Palo Alto, California, area and provides televised courses over that channel to its students. AT&T has obtained a video franchise from the California Public Utilities Commission for the Palo Alto area and has begun offering its U-verse multichannel video service in the area. California law requires AT&T to carry De Anza's educational access channel on its U-verse system. *See* Cal. Util. Code §§ 5870(a) & (b). De Anza's televised courses are all closed captioned, as is required by the California Community College Chancellor's Office. Because AT&T's U-verse system will not pass through De Anza's closed captioned programming to viewers intact, as well as other shortcomings of AT&T's PEG delivery system that limit the usability of De Anza's course programming by its students, De Anza has been unable to allow AT&T to carry its educational access programming. *See* Exhibit A.

Petitioner CAN TV is a non-profit organization responsible for operating five PEG access channels in Chicago. Its access channels reach one million viewers with local programming

concerning public affairs, cultural activities, school programs, community and civic events, health care, jobs and counseling. AT&T has obtained a video franchise for the state of Illinois from the Illinois Commerce Commission and is beginning to offer its U-verse multichannel video service in Chicago and surrounding suburbs. Illinois law requires AT&T to carry CAN TV's channels on its U-verse system. *See* 220 Ill. Comp. Stat. 5-21-601 (2008).

Petitioner Illinois NATOA is a non-profit membership organization of local government officials and staff members in Illinois whose responsibility is to develop, administer and enforce cable franchise requirements, including PEG obligations. Many Illinois NATOA members are also responsible for operating government access channels. AT&T has obtained a video franchise from the Illinois Commerce Commission that includes the local jurisdictions of many Illinois NATOA members. As noted above, Illinois law requires AT&T to carry PEG channels in Illinois NATOA members' jurisdictions on its U-verse system.

Petitioner MNN is a non-profit corporation responsible for administering the Public Access cable television service on four channels in Manhattan. Its purpose is to ensure the ability of Manhattan residents to exercise their First Amendment rights through the medium of cable television and to create opportunities for mutual communication, education, artistic expression and other noncommercial uses of video facilities on an open, uncensored and equitable basis. In providing services, MNN seeks to involve the diverse racial, ethnic and geographic communities in Manhattan in the electronic communication of their varied interests, needs, concerns and identities.

Petitioner BronxNet is a non-profit corporation serving the borough of the Bronx. BronxNet programs four channels on the cable system in the Bronx. Each channel presents a unique brand of programming and public affairs programming, arts and entertainment programs

including many that spotlight local artists, foreign language programs of special interest to the various nationalities that make up the borough, and informational programs produced by local organizations as well as inspirational programs produced by local churches.

Petitioner BCAT gives Brooklynites the tools and know-how to professionally create and cablecast their own television programs, and produces noncommercial television programs that reflect the borough's diversity of thought and culture. BCAT provides a voice for all the people of Brooklyn through four public access channels, a media education center, a video production facility, and special programming initiatives. BCAT is the media arts program of BRIC Art/Media/Bklyn, a multi-disciplinary arts and media non-profit dedicated to representing visual, performing and media arts programs that are reflective of Brooklyn's diverse communities.

Petitioner City of Raleigh is a North Carolina municipality responsible for overseeing four PEG channels serving the Raleigh/Wake County, North Carolina, area: RTN channels 10, 11, 18 and 22. AT&T recently obtained a video franchise from the State of North Carolina for the Raleigh/Wake County area and will soon offer its U-verse multichannel video service in the Raleigh area. North Carolina law requires AT&T to carry Raleigh's PEG channels on its U-verse system. *See* N.C. Gen. Stat. §§ 66-357 & 66-358 (2008).

Petitioners ACM Western Region, ACM Central States Region, ACM Midwest Region, ACM Northwest Region, and ACM Northeast Region are regional affiliates of ACM that serve and represent the interests of their organizational and individual PEG members in those five regions of the United States.

Petitioner SEATOA, the SouthEast Chapter of NATOA, comprises members who are local government officials and staff members serving city and county governments and regional authorities in Georgia, North Carolina, South Carolina and Tennessee in enforcing and

administering cable franchises and operating government access channels. AT&T has obtained state franchises in each of the states of SEATOA members, and AT&T is required by the state laws of each of those states to carry some SEATOA members' PEG channels on its U-verse system.

INTRODUCTION

At issue in this Petition are the legality, under the Communications Act and Commission rules, of AT&T's U-verse "PEG product," and the meaning of the pass-through obligations of the Commission's closed captioning rules, 47 C.F.R. §§ 76.606 & 79.01(c). As explained in more detail below, AT&T's method of delivering PEG channel programming to its U-verse video subscribers results in different, and markedly inferior, PEG channel accessibility, functionality and signal quality to that afforded all other basic (and virtually all non-basic) video channels on AT&T's U-verse systems. AT&T's U-verse product also does not pass through closed captioning contained in PEG programming.

The inferiority of AT&T's delivery of PEG programming vis-à-vis its delivery of other video programming on its U-verse systems stems from AT&T's business decision, apparently made before it ever rolled out U-verse, to process and deliver PEG programming in a fundamentally different way from all broadcast and commercial cable programming delivered over its U-verse system. The result is that PEG programming, unlike the programming of broadcast and commercial cable channels on AT&T's U-verse system, is reduced to a separately downloaded Internet streaming video application with inferior accessibility, functionality and signal quality.

Petitioners therefore ask the Commission to declare the following with respect to AT&T's method of delivering PEG programming over its U-verse system and the FCC's closed captioning rules:

1. AT&T's systematic discrimination against PEG programming in terms of accessibility, functionality, and signal quality violates (a) Sections 611, 623 and 624(e) of the Communications Act of 1934, s amended, and the Commission's ruling in *Cable Television Technical and Operational Requirements*, Report and Order, 7 FCC Rcd. 2021 (1992) ("*1992 Cable Technical Standards Order*"), that cable operators may not discriminate among video cable channels, or against PEG channels, in the delivery of PEG program signals as to the quality of signal their subscribers receive, and (b) the requirement of Section 611(e) that cable operators may not exercise editorial control over PEG channel capacity.

2. AT&T's "PEG product" fails to provide PEG programmers with "channels" as defined in Section 602(4) of the Cable Act and Sections 73.681 and 73.682 of the Commission's rules and thus violates Section 611 of the Cable Act by failing to provide "channel capacity" for PEG use.

3. The closed captioning pass-through requirements imposed on cable operators and VPDs by Sections 76.606 and 79.1(c) of the Commission's rules are absolute and are not qualified by Section 79.1(e)(2).

I. AT&T'S "PEG PRODUCT" REDUCES PEG CHANNELS, UNLIKE OTHER VIDEO CHANNELS ON AT&T'S BASIC TIER, TO AN INTERNET-STREAMING VIDEO APPLICATION WITH MARKEDLY INFERIOR ACCESSIBILITY, FUNCTIONALITY AND SIGNAL QUALITY.

What AT&T refers to as its "PEG product" differs fundamentally from other video programming provided on AT&T U-verse's basic video programming tier. The marked differences can be analyzed in two ways, both of which reveal the inferiority of AT&T's delivery of PEG programming vis-à-vis its delivery of broadcast and commercial cable programming on its U-verse system: (a) from the subscriber's perspective, and (b) from a technical perspective

that sheds light on what causes the differences that the subscriber experiences. We address the subscribers' viewpoint in Subpart A below, and the technical perspective in Subpart B below.[1]

A. U-verse Subscribers Wishing to Retrieve and View Their Local Community's PEG Programming Experience Markedly Substandard Accessibility, Functionality, and Signal Quality Compared to Other Programming.

Because some believe that a picture can be worth a thousand words, we begin by noting that there are some demonstrations of AT&T's "PEG product" online. One demonstration, recorded by the Division of Ratepayer Advocate's ("DRA") office of the California Public Utilities Commission in September 2008, can be found at http://www.youtube.com/californiaDRA. Another one was performed by AT&T in San Antonio around September 2008, and is referred to in AT&T's October 2, 2008, letter to the Commission.[2]

The details and download times vary between the DRA and the AT&T demonstrations. There are two primary reasons for the variance. First, the number of jurisdictions with PEG channels and the number of PEG channels in each jurisdiction on AT&T's U-verse system in the San Antonio Designated Market Area ("DMA"), where AT&T's demonstration occurred, are far fewer than in the San Francisco Bay Area DMA where the DRA demonstration occurred. In San Antonio, where there are only 3 PEG channels, there is no intermediate menu listing jurisdictions other than San Antonio. As a result, the load time for AT&T's PEG product in San Antonio is less than in the San Francisco DMA, where there are many more jurisdictions with PEG channels

[1] *See* Exhibits B (Declaration of Christopher Pearce) and C (Declaration of Dean Stone).

[2] Letter from Robert W. Quinn, Jr., Senior Vice President-Federal Regulatory, AT&T Services Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission at 7 (Oct. 2, 2008) ("AT&T's Letter to FCC").

(and thus on the AT&T PEG product jurisdiction menu), and there are also more PEG channels on the PEG product submenus setting forth the PEG channels in each of those jurisdictions.

Second, the AT&T demonstration tested for fewer functions than the DRA demonstration. AT&T's San Antonio demonstration, for instance, failed to compare channel surfing between PEG and other channels, and also failed to compare surfing between those other channels to show the difference between channel surfing involving only broadcast and commercial cable channels versus any channel surfing involving PEG channel programming. As we note below, these functions on AT&T's PEG product are among its least user-friendly.

Several common traits of AT&T's PEG product are discernible in both demonstrations. And all of those traits make accessing, viewing and using PEG programming on AT&T's U-verse system noticeably inferior to accessing, viewing and using broadcast and commercial cable programming on that system.

1. Accessing PEG Programs on U-verse.

When a subscriber to AT&T's U-verse multichannel video service wishes to select a particular broadcast or commercial cable programming channel, the process is virtually indistinguishable from that of a traditional incumbent operator cable system: the subscriber selects the channel number on a remote and the requested channel appears almost immediately. When the subscriber wishes to change channels, he or she simply inputs the new desired channel on the remote (or hits the "up" or "down" channel button), and again, the desired channel appears almost immediately. Also as with a traditional cable system, the AT&T U-verse subscriber may surf between broadcast and commercial cable channels and use "last channel" capability, and there is a channel guide to assist the subscriber in locating, and recording, a particular channel.

If, however, an AT&T U-verse subscriber wishes to locate and watch local programming of a PEG channel from the community where he or she lives, the process is much different, much more time-consuming, and much more complicated. The subscriber will find no individual local PEG channels listed on the AT&T channel guide. And in some instances, the subscriber may find no listing for PEG at all on AT&T's published program guide. At most, AT&T's onscreen guide may show a generic listing of "Local Government Education and Public Access" assigned to "Channel 99" of the U-verse lineup.[3]

This single, generic listing does not indicate which, if any, of the PEG channels of the subscriber's local community may be found at Channel 99, nor does AT&T's electronic program guide indicate what community programming is available under "Channel 99." What the subscriber will find, however, is that on AT&T's system, clicking "99" is only the beginning, not the end, of the journey the subscriber must take to find, retrieve and ultimately watch the programming of the particular local PEG channel he or she wants to view.

Channel 99 on AT&T's system is not a video channel at all. Instead, clicking "99" on the remote activates the downloading of an Internet-mediated application that AT&T sometimes refers to as its "PEG product." The subscriber first receives a generic screen entitled "Local Government Education and Public Access." The subscriber must then press "OK," which initiates the loading of AT&T's "PEG product" application. Unlike retrieving any broadcast or commercial cable programming channel, the loading of AT&T's PEG application can take anywhere from 8 seconds to over a minute. The AT&T PEG product load time is particularly

[3] The difficulty in locating PEG programming stands in stark contrast to AT&T's advertising claims that with the U-verse program guide, a subscriber "can easily find a channel." Exhibit D.

ironic in light of AT&T's misleading advertising claim that its U-verse video offering offers the advantage of "fast channel change."[4]

Once AT&T's PEG product application is finally loaded, the subscriber then receives a menu listing the names of all of the various communities in the DMA where the U-verse system is located. The subscriber must scroll down the list of communities to find his/her selected community and click on it (in major DMAs, the list can be quite long). After yet another delay, the subscriber is then presented with yet another menu of the PEG channels in the selected community. The subscriber must again scroll down and find and select the desired PEG access channel. Once the subscriber finally locates the desired PEG channel, he or she still only receives a minimized version of that channel's programming occupying only about a quarter of the TV screen. The subscriber must hit "OK" to enlarge the PEG channel's picture a full screen – the equivalent of zooming to full screen when watching video on a computer.

The many time-consuming steps a subscriber must take to find and retrieve a particular PEG channel's programming on AT&T's U-verse system is a clear inconvenience and a barrier to accessing PEG programming that a subscriber need not overcome in accessing broadcast and commercial cable channels. But it is also more than that: It can be an insurmountable obstacle for the visually impaired.

This is no small matter. For instance, Raleigh's RTN public access channel 22 carries the Triangle Radio Reading Service ("TRRS"), which provides local news and information for blind, elderly and print-impaired people in the greater Raleigh area.[5] Today, on the incumbent

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[4] *See* Exhibit E.

[5] Similarly, Chicagoland Radio Information Service (CRIS) is carried on CAN TV's PEG access channels in Chicago, providing daily readings of newspapers and periodicals as well as special interest programs serving the interests of Chicago's visually impaired community and other listeners who have a wide range of disabilities.

operator's system, a visually-impaired subscriber need only remember to enter "22" on the remote to reach TRRS. With AT&T's PEG product, however, a visually-impaired subscriber's remembering to enter "99" would be insufficient to reach RTN 22's TRRS. Rather, the visually-impaired subscriber wishing to reach RTN 22's TRRS would have to know to wait for AT&T's PEG product to load, and then somehow have to be able to view, scroll down, find the correct community and then the correct PEG channel in the submenu for that community, then click through each of the AT&T PEG product menu and submenu screens to reach TRRS – a task that would be, to say the least, a serious challenge to anyone who is visually impaired.[6]

2. Viewing PEG Programming on U-verse.

The U-verse video subscriber's problems with AT&T's "PEG product" do not end, however, even after the subscriber has taken these many steps just to retrieve a particular PEG channel. These additional problems occur both in viewing PEG programming once it is finally retrieved and, perhaps even more obviously, when the subscriber tries to surf between PEG and other channels.

The signal quality of PEG on AT&T's PEG product is inferior to that of broadcast and commercial cable channels on AT&T's U-verse system. Unknown differences between the compression techniques, frame rate, and downstream delivery mechanisms that AT&T uses for PEG, as opposed to broadcast and commercial cable channels, programming (see Part I(B) *infra*) can result in inferior PEG picture quality on AT&T's U-verse system, especially for programming involving considerable motion, such as high school sports events, dance concerts or civic parades that are common content of PEG programs.

[6] While AT&T has apparently added a last-watched PEG channel feature to its PEG product, this would not help a visually-impaired viewer seeking TRRS if the viewer had visited another local PEG channel in the interim, because that other PEG channel would then be the last-watched PEG channel.

In addition, AT&T's PEG product is incapable of passing through closed captioning in PEG programming that is delivered to AT&T with closed captioning. AT&T therefore must be removing, disabling or displacing, at least in part, this functionality of the PEG signal in delivering PEG programming.[7] This is a clear indication that AT&T's PEG product singles out PEG programming for inferior treatment vis-à-vis broadcast and commercial cable channels on its system.

AT&T does claim, however, that its PEG product provides open captioning. But this means that, unlike broadcast and commercial cable programmers, AT&T forces PEG programmers to have their programming partially obscured by "always on" open captioning, if they wish to deliver captioned programming at all. As a result, AT&T U-verse subscribers attempting to view PEG programming that was intended to provide the option of closed captioning will have a portion of the screen perpetually blocked by the open captioning, even if viewers have no need for or do not wish captioning. This defect violates Commission closed-captioning rules (see Part IV *infra*). Separate and apart from that, however, AT&T's inability to pass through closed captioning in PEG programming, and its picture-blocking, always-on open captioning substitute, renders PEG programming demonstrably different from, and inferior to, other programming on AT&T's U-verse system.

Moreover, also unlike broadcast and commercial cable channels on AT&T's U-verse system, AT&T's PEG product removes or disables secondary audio program ("SAP") capability so SAP in PEG programming is not passed through. Some Petitioners, as well as many other PEG programmers, use SAP capability to deliver programming in Spanish, to provide video

[7] Closed captioning information encoded onto line 21 of the Vertical Blanking Interval in analog signals, or the metadata equivalent in digital signals, provide the viewer with the option to view or hide captions.

description services, to deliver radio reading services, and to deliver community radio programming. *See* pages 3-4 & 12-13 *supra*. All of these important local community PEG services are lost with AT&T's PEG product.

Also unlike the case with other programming, AT&T subscribers will experience frustration in attempting to record PEG programming. Although AT&T claims that subscribers may record PEG programming on their own VCRs or DVD recorders, AT&T admits that subscribers cannot record PEG programming using AT&T's own DVR capability, as they could with broadcast and commercial cable channels.[8] PEG programming on AT&T's U-verse system also cannot be recorded using third-party programmed recording devices such as TiVo. Moreover, even with respect to subscriber-owned recording devices, U-verse subscribers may only record PEG programming manually while their TV set is tuned to the desired PEG programming at the correct time; they *cannot* program their recorder to record PEG programming they are not watching for later viewing. This is due at least in part to the fact that PEG programming is not located on AT&T's channel guide or channel map. For some types of automated program recording, the absence of this capability may also be caused by removal, displacement or disabling of the reference clock contained in the vertical blanking interval ("VBI") of the analog signal, or its digital signal equivalent, that is used by recording equipment to set times.

Thus, AT&T's PEG product denies PEG viewers the basic time-shifting DVR capability that they enjoy with broadcast or commercial cable channels. This deprives U-verse viewers of the opportunity to record and later watch village board meetings, civic events, health, educational

[8] Letter from Robert W. Quinn, Jr., Senior Vice President-Federal Regulatory, AT&T Services Inc., to Dana Appling, Director, Division of Ratepayer Advocates, California Public Utilities Commission 2 (Sept. 19, 2008) ("AT&T's Letter to CPUC").

and other programming. This functional deficit imposed by AT&T on PEG programming is a huge and growing one: Penetration of users employing time-shifting DVR capability regularly in the U.S. is expected to reach 30 to 35% by 2010.[9]

3. Channel Surfing and PEG on U-verse.

Having navigated through the many obstacles to reach and watch a particular PEG channel on AT&T's system, the U-verse video subscriber still faces yet another obstacle: going to and from the programming of a particular PEG channel to a local broadcast or commercial cable programming channel – in other words, that favorite practice of TV viewers, channel surfing.

To leave a particular PEG program and go to a broadcast or commercial cable channel, the viewer cannot simply input the channel number of the broadcast or commercial cable programming he or she wishes to view. Instead, the PEG viewer must "back out" of AT&T's PEG product application, either by pressing the "back" button and going through each of the PEG menus screens until he or she reaches the initial channel 99 "Local Government Education and Public Access" screen, or by pressing the "exit" button. Only then can the subscriber input the channel number of the desired broadcast or commercial cable programming.

If the subscriber subsequently wishes to return to a PEG channel, he or she must once again go through the application loading and multi-step menu process described in Part I(A) above. AT&T claims that it has recently added a short cut to the "return to PEG" channel surfing process by adding an "auto recall feature" that will return the viewer to the last-viewed PEG channel.[10] Even assuming that is true, however, AT&T does not say how long it will take

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[9] Stacy Trombino, "Watching the TiVo Effect," *Business Week*, Mar. 2, 2006, *available at* http://businessweek.com/investor/content/mar2006/pi20060302_999595.htm.

[10] AT&T's Letter to FCC at 2.

the PEG application to reload to reach that PEG channel, and at least as described by AT&T, even this "auto recall" feature will be of no help to channel surfing subscriber who wishes to channel surf to a *different* local PEG channel.

In short, channel surfing between PEG and other channels on AT&T's U-verse system is time-consuming and cumbersome – the very antithesis of what viewers expect and demand when channel surfing.[11] It is also a time-consuming inconvenience that does *not* occur when the subscriber channel surfs among broadcast and commercial cable channels on AT&T's system.

Thus, in terms of program accessibility, functionality and viewability, AT&T's U-verse system singles out PEG for different and markedly inferior treatment.

B. The Program Accessibility, Functionality and Viewability Deficiencies in AT&T's PEG Product Stem from AT&T's Decision to Reduce PEG, but Not Other Video Channels, to a Separate and Lesser Internet-Based Video Streaming Application.

AT&T has not been forthcoming about the technical details of its AT&T PEG product. Petitioners only have access to information about the factual aspects of AT&T's PEG product that it has made publicly available.[12] And AT&T has not publicly made available the technical details of how it delivers other channels. As a result, the software and hardware differences between how AT&T treats PEG, on the one hand, and broadcast and commercial channels on the other, cannot be fully assessed and understood.[13] Even what limited information AT&T has

[11] Indeed, 55% of viewers rely on channel surfing or electronic program guides to find the programming they want to watch. *See* Slide 28, Cable Television Advertising Bureau (April 2004). Yet AT&T's PEG product renders PEG programming all-but-invisible to subscribers on both of these key functionalities.

[12] *See* Exhibit F.

[13] We suggest that the Commission require AT&T to make that information available.

made available, however, indicates that its PEG product renders PEG programming inferior to other channel programming on its U-verse system.[14]

AT&T describes its PEG product as –

> an application that integrates content obtained via a secure Internet-based link, for example a "stream" of live community video, and delivers that content to end-user's television via the U-verse set top box ("STB"). In addition to delivering municipal [*i.e.*, PEG] content, AT&T intends to use the same technology to support the delivery and introduction of new or "specialized" commercial video content sources . . . .[15]

This description confirms that, from a system engineering and architecture standpoint, AT&T's PEG product treats PEG channel programming in a fundamentally different way than it treats programming from broadcast and commercial cable channels. AT&T describes its PEG product as "an application that integrates content via a secure Internet-based link" for "streaming video," a new application that AT&T *"hope[s]" to use* in the future for unspecified *"new" or "specialized commercial video content sources."*[16] But this "application," which AT&T's own description characterizes as currently unique to PEG, is apparently *not* believed by AT&T, or by broadcast or commercial cable channel programmers, to be adequate for those video programmers. The reason is obvious: AT&T does not use this "application" to deliver these other programmers' programming.

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[14] As stated in the Congressional Research Service's September 5, 2008 Report on PEG Access, AT&T "has chosen not to make PEG programming available to subscribers in the same fashion that it makes commercial programming available. Instead it treats PEG content the same way it treats Internet traffic." Charles B. Goldfarb, Congressional Research Service, "Public, Educational, and Governmental (PEG) Access Cable Television Channels: Issues for Congress," at 9 (2008).

[15] Letter from Joseph P. Tocco, General Attorney, AT&T Services, Inc., to Randi Levin, Chief Technology officer, City of Las Angeles (Aug. 18, 2008) ("AT&T's L.A. Letter"), at attachment "U-verse Delivery of PEG Programming" ("U-verse PEG Paper"), at 2. *See also* AT&T's Letter to FCC at 2 (also describing AT&T PEG product as an "application").

[16] U-verse PEG Paper at 2 (emphasis added).

A detailed technical comparison of how AT&T treats PEG programming, on the one hand, and broadcast and commercial cable video programming, on the other, is not possible unless AT&T is compelled to provide the necessary information on both, which we believe the Commission should do. Among the relevant parameters for comparison between AT&T's treatment of PEG and of other programming would be frame rate, resolution, compression techniques and the resulting data rate, along with functionality and integrity of the various components of the signal, including how metadata contained in the Vertical Blanking Interval ("VBI") and Program and System Information Protocol ("PSIP") are treated. What AT&T has supplied to date is some, but only some, information about the resolution and data rate for PEG (but only PEG).

PEG programming on AT&T's U-verse's system appears to be encoded at a substantially lower bit rate than broadcast and commercial cable channels and, indeed, at a rate lower than is required to produce a standard quality TV signal. PEG programming on AT&T's U-verse system, is "encoded at a rate of 1.25 Mbps per stream."[17] Yet an encoding rate of between 2.5 and 4 Mbps is generally required for a standard definition signal, and 8 Mbps for a high-definition signal.[18] Thus, PEG programming will be inferior to other programming on AT&T's system, as it is encoded at a rate that delivers substantially less data than what is required for standard quality television signals.

[17] Exhibit F at 1.

[18] Merrill Lynch, "Everything over IP," at 30 (Mar. 12, 2004), *available at* http://www.vonage.com/media/pdf/res_03_02_04.pdf.

AT&T has stated that it has recently increased its PEG product pixel resolution from 320 x 240 to 480 x 480.[19] But this is still less than standard broadcast television pixel resolution of 720 x 480. For PEG programming produced and delivered in standard TV resolution, AT&T's 480 x 480 PEG product pixel resolution will necessarily result in some loss of horizontal resolution. While we doubt AT&T imposes this resolution loss on television broadcast and commercial cable programmers on its U-verse system, it is impossible to tell with confidence, because AT&T has not publicly disclosed the technical parameters for its delivery of such other channels' programming.

As noted above, AT&T's PEG product cannot pass through to subscribers any closed captioning, SAP, and possibly the reference clock contained in the analog signal VBI and its digital signal equivalent in PEG programming.[20] This, too, indicates a technical distortion of PEG programming vis-à-vis other programming on AT&T's U-verse system.

Overall, PEG programming on AT&T's U-verse system appears to be subject to significant transmission, data and content constraints that broadcast and commercial cable programming channels on its system are not. While the Commission should require full disclosure from AT&T to understand the scope of technical differences between how AT&T treats PEG programming and how it treats other video programming channels, one conclusion is clear: From the subscriber's, and the PEG programmer's, standpoints, AT&T's PEG product

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[19] *Public, Educational, and Governmental (PEG) Access to Cable Television: Hearing Before the H. Subcomm. on Fin. Servs. and Gen. Gov't of the H. Comm. on Appropriations*, 110th Cong. at 6 (statement of AT&T Inc.) (2008) ("AT&T Statement"); L.A. Letter at 2; AT&T's Letter to CPUC at 2.

[20] There may be additional ways that AT&T's PEG product adversely affects PEG signal quality and functionality beyond those issues discussed above. Closed captioning, SAP and possibly the reference clock contained in the VBI are video channel functions that in normal practice are passed through without interference, but are not passed through – at least not fully intact – by AT&T's PEG product. Other video channel functions may be similarly affected, such as reference signals for color correction and alignment (VITS, VIR) or other reference information for automated recording by host or third party systems, such as AT&T's own DVR features or TiVo.

singles out PEG programming, and only PEG programming, for disparate treatment, rendering PEG programming inherently inferior, in terms of accessibility, functionality and signal quality, to commercial video channels on the U-verse system.

AT&T has claimed that this discrimination against PEG is necessary due to the nature of its system,[21] but it is far from clear that is true. If PEG programming were treated like broadcast and commercial cable programming on AT&T's system, the independent addressability of all of AT&T's set-top boxes ("STBs") would enable it to direct the specific PEG channels of the community where each individual subscriber resides to that subscriber's STB, and thus to provide the PEG programming of that particular subscriber's community to that subscriber in the same format and functionality as broadcast and commercial cable channels on AT&T's system.[22] SureWest, a cable operator in Sacramento, operates an all-IPTV system, but unlike AT&T, delivers PEG channels in the same way as other channels on its system.

It appears that AT&T has made a number of engineering choices with respect to its network design and software designed to reduce the cost of upgrading its U-verse system versus the cost of building the fiber-to-the-premises system being incurred by other major providers. (Press reports suggest that Verizon's FiOS plant upgrade will cost approximately $23 billion nationwide, while AT&T initially estimated its upgrade costs at approximately $4.6 billion, and has since suggested it will spend more than $6 billion nationwide.) While it may now cost AT&T money to bring its system into compliance with relevant law, the alternative – to allow a large provider like AT&T to implement a design that systematically discriminates against PEG

[21] AT&T's Letter to FCC at 4 n.5.

[22] *See* Exhibit G.

and thus fails to comply with legal requirements – would simply encourage all other providers to follow suit and discriminate against PEG as well.

AT&T claims that it has "worked with" local communities in designing its PEG product.[23] None of the Petitioners was ever contacted, nor are we aware of any national association or group representing PEG programmers that was ever contacted for input on AT&T's PEG product *before* its basic design was in place. As far as it appears, AT&T made business decisions before it ever rolled out its U-verse multichannel video service to relegate PEG programming, alone among broadcast and commercial basic video programmers, to an Internet streaming video application with reduced accessibility, functionality and quality. AT&T's claimed discussions with local communities about its PEG product occurred *after* AT&T's basic design of that product, and were intended only to persuade local communities to accept that product, and perhaps to make minor improvements to it, *not* to change the basic, and inferior, software and system architecture of AT&T's PEG product vis-à-vis broadcast and commercial cable channels carried on AT&T's U-verse system.

AT&T has boasted that its PEG product represents a new technology that should be encouraged.[24] Petitioners support technological advances that result in improved functionality and quality for all video programming services. That is not the case with AT&T's PEG product, however. It singles out community-based PEG channels and consigns them to functionality, accessibility and quality that is inferior to all other channels.

[23] AT&T's Letter to FCC at 1; AT&T Statement at 4.

[24] AT&T's Letter to FCC at 6; U-verse PEG Paper at 1.

II. AT&T'S PEG PRODUCT UNLAWFULLY DISCRIMINATES AGAINST, AND EXERCISES EDITORIAL CONTROL OVER, PEG PROGRAMMING IN VIOLATION OF THE CABLE ACT AND COMMISSION POLICIES CONCERNING PEG SIGNALS.

There can be no serious dispute that AT&T's PEG product discriminates markedly against PEG programming, in terms of accessibility, functionality and viewability, vis-à-vis broadcast and commercial cable channels on AT&T's U-verse system. This outright discrimination against PEG programming and PEG channels is directly contrary to Congress' expressed intent in enacting the 1984 and 1992 Cable Acts,[25] as well as longstanding Commission policy concerning PEG signal quality requirements.

We begin with Section 611 of the Communications Act, 47 U.S.C. § 531, the PEG provision of the 1984 Cable Act. Section 611(a) allows a franchising authority to "establish requirements in a franchise with respect to the designation or use of *channel capacity* for [PEG] use," and to "require" as part of a request for proposals for a franchise renewal, that "*channel capacity* be designated for [PEG] use," and that a franchising authority "may enforce" any franchise requirement concerning "*channel capacity* . . . designated for [PEG] use." 47 U.S.C. § 531(a)-(c) (emphasis added). The balance of Section 611, and specifically subsections 611(d)-(e), also specifically refer to "channel capacity" for PEG use. (PEG Petitioners' franchises, whether state or local, contain provisions requiring a cable operator to set aside such channel capacity for PEG use.[26])

[25] Cable Communications Policy Act of 1984, as amended, 47 U.S.C. §§ 521, *et seq.* ("1984 Cable Act"); Cable Television Consumer Protection and Competition Act of 1992, 47 U.S.C. §§ 325, *et seq.* ("1992 Cable Act").

[26] *See* pp. 3-7 *supra*.

Other provisions of the Cable Act dealing with television broadcasters and commercial cable programmers likewise refer to "channel" capacity.[27] The Act's parallel treatment of "channel" capacity for PEG and other programming is, of course, powerful evidence that Congress intended PEG to receive the same type of "channel" capacity as commercial channels, *not* discriminatorily inferior treatment.[28]

The legislative history of the 1984 Cable Act makes equally clear what Congress intended such PEG "channel capacity" to be. In discussing the PEG provisions of § 611, the *1984 House Report* noted that "cable television, with its abundance of channels, can provide the public and [PEG] program providers [with] meaningful access" to "people other than [television] licensees or owners of those media."[29] That "meaningful access" was in the form of "channels."[30] And with respect to those PEG channels, "cable operators act as a [sic] conduits."[31] The term "conduit," of course, connotes non-discriminatory delivery without change in form or content.[32] At the heart of § 611, then, is Congress' understanding that PEG programmers were to be provided the same type of "channel capacity" as broadcast and commercial cable programmers, *not* discriminatorily inferior capacity in terms of viewer accessibility, functionality and signal quality. Yet that is precisely what AT&T's PEG product provides to PEG programmers *and* viewers.

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[27] *See, e.g.*, 47 U.S.C. § 532 (commercial leased access), 47 U.S.C. § 534(b) (carriage of local commercial TV signals), & 47 U.S.C. § 535(b) (carriage of non-commercial educational TV stations).

[28] The Cable Act's frequent use of "channel" capacity for PEG use also raises a related, but separate Cable Act question: Whether AT&T's PEG product even delivers to PEG users a "channel" within the meaning of the Cable Act. 47 U.S.C. § 522(4). As we show in Part III below, it does not, and for that reason violates the Cable Act on the independent ground as well.

[29] H. Rep. No. 934, 98th Cong., 2d Sess. at 30 (1984), *reprinted in* 1984 U.S.C.C.A.N. 4655, 4667 ("*1984 House Report*").

[30] *Id.*

[31] *Id.* at 35, *reprinted in* 1984 U.S.C.C.A.N. at 4672.

[32] *Cf.* 47 U.S.C. § 153(43).

The Cable Act principle that PEG is not to be discriminated against vis-à-vis commercial channels was reaffirmed by Congress when it enacted the 1992 Cable Act. In the related context of discussing § 623(b)(7)(A)'s requirement that PEG channels must be placed on the basic tier, Congress made explicitly clear its intent that cable operators may *not* discriminate against PEG channels:

> PEG programming is delivered on channels set aside for community use in many cable systems, and *these channels are available to all community members on a nondiscriminatory basis*, usually without charge . . . . PEG channels serve a substantial and compelling government interest in diversity, a free market of [ideas,] and an informed and well-education citizenry.[33]

The roots of this non-discrimination principle with respect to PEG extends beyond the language and legislative history of the 1984 and 1992 Cable Acts to the longstanding decisions and policies of the Commission itself. Indeed, for over twenty years, the Commission has made clear its view that cable operators may *not* discriminate against PEG (or for the matter, between any classes of downstream video programming) in terms of signal quality.

Prior to 1988, the Commission set cable system technical signal standards – and only "guidelines" at that – only for Class I cable channels,[34] *i.e.*, retransmitted local broadcast channels.[35] In 1988, however, the FCC proposed to extend "the signal quality guidelines that now apply to Class I channels for television signals or Class II, III and IV cable channels that are intended to be displayed on NTSC receivers."[36] (PEG channels are Class II cable channels, as

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[33] H.R. Rep. No. 102-628, 102d Cong., 2d Sess. at 85 (1992).

[34] *See 1992 Cable Technical Standards Order*. 7 FCC Rcd. at 2021-22.

[35] *See* 47 C.F.R. § 76.5(r).

[36] *Review of the Technical and Operational Requirements of Part 76, Cable Television*, Further Notice of Proposed Rule Making, 3 FCC Rcd 5966 (1988) ("*1988 Cable Technical Standards FNPRM*").

well as most popular advertiser-supported cable programming channels.[37]) The Commission's rationale for extending the technical signal quality guidelines to (among others) PEG channels is one grounded on the principle of assuring uniform signal quality for viewers:

> We believe the same "broadcast quality" approach used in developing the Class I channel standards is also appropriate for these other classes of channels. *These standards would define a level of television service on Class II, III, and IV cable channels that is of the same quality as that which cable subscribers have been accustomed to in viewing broadcast services on Class I channels.* ... We believe that any well maintained cable system should be able to meet or exceed our signal quality guidelines on Class II, III, and IV channels a well as Class I. We also believe that since all these classes of cable channels share the same physical facility or *conduit* (*i.e.*, must be transmitted through the same "wire" and processing equipment), the quality of one class of channel can potentially affect the quality of the other channel classes.[38]

In 1991, the Commission reaffirmed its policy that all downstream video channels, both broadcast and non-broadcast (including PEG), on a cable system should be of uniform quality, and further amplified this principle by proposing that cable operators should not discriminate among such channels in terms of signal quality:

> We propose to extend our [cable system] technical standards to all analog NTSC video downstream signals – that is, signals transmitted from the cable headend to subscriber terminals – on all cable channels. *This comports with our objective to ensure that cable systems meeting these standards provide an acceptable quality of service to their subscribers, and that signal quality be uniform for all video channels in the cable system. . . . . We do not propose, therefore, to discriminate among video cable channels as to the quality of signal expected.*[39]

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[37] *See, e.g., 1992 Cable Technical Standards Order*, 7 FCC Rcd at 2022 n.5; 47 C.F.R § 76.5(s).

[38] *1988 Cable Technical Standards FNPRM*, 3 FCC Rcd at 5969 (¶ 16) (emphasis added).

[39] *Cable Television Technical and Operational Requirements*, Notice of Proposed Rule Making, 6 FCC Rcd 3673, 3675 (¶ 8) (1991) ("*1991 Cable Technical Standards NPRM*") (emphasis added).

Less than a year later, the Commission adopted new cable system technical standards to replace the former guidelines, and extended those new standards to (among others) PEG channels. In doing so, the Commission once again reiterated the driving force behind the application of the standards to all video channels: Cable signal quality should be uniform across cable channels, and there should be no discrimination among video channels in terms of the quality of the signal received by the subscriber:

> The [cable system] technical standards in our new rules will be applicable . . . to all NTSC video (or similar video channel) downstream signals – that is, video signals transmitted from the cable headend to subscriber terminals – on all cable channels. . . . . We believe that extending the standards in this fashion comports with our objectives of ensuring that cable systems provide an acceptable level of quality of service to their subscribers, and that signal quality is uniform for all video channels on the cable system. . . . . *We do not believe, therefore, that we should discriminate among video cable channels as to the quality of signal received.*[40]

Regardless of the underlying transmission protocol, the fundamental principles of the Commission's decisions remain and are undeniable: Cable operators may not discriminate against PEG programming in the delivery of signals to subscribers. The Commission has required operators to deliver channels in Class II (like PEG) at the same level of quality as channels in Class I, and it has not authorized cable operators to deliver channels like PEG, which are outside the operator's editorial control and which the operator is required by law to carry, at a lower quality than those video channels that the operator chooses to carry for its own commercial purposes.

The Media Bureau has recently reaffirmed this PEG non-discrimination principle in the analogous context of an incumbent cable operator's shift of PEG channels to the digital tier:

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[40] *1992 Cable Television Technical Standards Order*, 7 FCC Rcd at 2024 (¶ 13) (emphasis added).

Cable operators may not discriminate against PEG vis-à-vis other basic tier channels in terms of accessibility.[41] Yet that, as we have shown, is precisely what AT&T's PEG product does.

In fact, AT&T's discriminatory treatment of PEG programming should be considered to be a *de facto* exclusion of PEG from the basic tier, contrary to the Cable Act. *See* Petition for Declaratory Ruling, *Petition for Declaratory Ruling Regarding Primary Jurisdiction Referenced in City of Dearborn et al. v. Comcast of Michigan III, Inc. et al.*, No. _____, at 20 & n.26 (FCC filed Dec. 9. 2008) (PEG is not on basic tier if it "is much more difficult to locate or find, or requires a consumer to take significant additional steps to view compared to other channels carried on basic"). In her prepared testimony on September 17 before the Subcommittee of the Committee on Appropriations of the U.S. House of Representatives, FCC Media Bureau Chief Monica Desai stated: "Section 623 of the Communications Act requires cable systems to carry, on their basic service tier, any PEG channels required by the LFA. Section 76.901 of the Commission's rules defines the basic service tier as including, among other signals, any PEG programming required by an LFA."[42] She explained:

> The Commission's regulations state that the basic service tier shall include at a minimum all local broadcast signals and any PEG programming required by the franchise to be carried on the basic tier. *It has come to our attention that some programmers* are moving PEG channels to a digital tier, or are *treating them as on-demand channels. We are concerned by these practices.* We believe that placing PEG channels on any tier other than the basic service tier may be a violation of the statute, which requires that PEG access programming be placed on the basic service tier. Subjecting consumers to additional burdens to watch their PEG channels defeats the purpose of the basic service tier. We believe

[41] Letter to Joseph Van Eaton from Monica Shah Desai, Chief FCC Media Bureau, re: City of Dearborn v. Comcast Heights III, Inc., and Comcast of the South, dated Jan. 18, 2009. *See also Public, Educational and Governmental (PEG) Access to Cable Television*: Hearing Before the H. Subcomm. on Fin. Servs. and Gen. Gov't Appropriations of the H. Comm. on Appropriations ("House PEG Hearing"), 110th Cong. 10-11 (2008) (testimony of Monica Desai, Chief of the Media Bureau, FCC) ("Desai Testimony").

[42] Desai Testimony at 9.

> it is important to ensure that consumers are able to get access equally to all channels belonging on the basic service tier, and that this should be the case regardless of what type of system the channels are being carried on.[43]

Specifically with respect to the issue of AT&T's PEG product, Congressman Schiff asked Ms. Desai whether in her opinion it violated the Cable Act for AT&T to put all PEG channels on a single channel and make people go through menus to find them, making PEG channels inaccessible. Ms. Desai responded: "Right. The statute requires PEG channels to be placed on the basic service tier along with your local broadcast channels. *So to place additional burdens on consumers to have to find their PEG channels seems to defeat the purpose of the basic service tier.*"[44]

In a letter sent to then-Chairman Martin on September 30, 2008, shortly after the hearing, House Appropriations Committee Leadership set forth its agreement with Ms. Desai's statement that PEG channels should not receive second class treatment and requested that the Commission determine whether such treatment is inconsistent with the Act and Commission rules:

> In its U-verse cable service, AT&T delivers PEG programming in a manner that is different from its delivery of commercial channels. The service offers PEG programming via an Internet-based video stream at a single channel location and requires the viewer to load PEG programming through a series of menus. Witnesses told the subcommittee that this method of PEG delivery is slow and technologically inferior to how commercial channels are delivered over U-verse service. They cited inferior picture quality, lack of closed captioning or second audio programming, incompatibility with programmable recording devices, and absence of program listing for PEG programs.
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[43] *Id.* at 10-11 (emphasis added).

[44] *Id.* at 77 (emphasis added).

> We agree with [Ms. Desai's] statement and believe that the concerns we heard at the hearing represent evidence that PEG channels are being assigned a second class status outside of the basic service tier. We ask the Commission to assess these concerns to determine whether the situations described are contrary to federal laws and regulations and, if so, take expeditious enforcement actions.[45]

AT&T's PEG product violates longstanding Commission principles: It singles out PEG programming for discriminatory and uniquely inferior treatment, in terms of accessibility, functionality and signal quality vis-à-vis other programming on the AT&T U-verse system's basic, and most non-basic, tiers. The Commission should therefore rule in no uncertain terms that AT&T's PEG product improperly discriminates against PEG programming in violation of the Act and Commission rules and policies.

By failing to pass through closed captioning, SAP and other video-related information in PEG programming that it receives, AT&T's PEG product also violates the Act in yet another separate and independent way.[46] Section 611(e) prohibits a cable operator's "exercise [of] any editorial control over any [PEG] use of channel capacity." Yet, by removing or disabling these content-related function capabilities of the PEG signal it received, AT&T is doing just that: It is impermissibly exercising editorial control over PEG channel capacity by "editing out" part of the content of PEG programming.[47]

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[45] Letter from Jose E. Serrano, Chairman H. Subcomm. on Fin. Servs. and Gen. Gov't of the Comm. on Appropriations, *et al.* to Kevin J. Martin, Chairman, FCC (Sept. 30, 2008), *available at* http://Serrano-house.gov/NewsDetail_aspx?ID=493.

[46] As explained in Part I(B) above, in the encoding or decoding process AT&T removes much, if not all, of the video channel-related information in a PEG signal's VBI or digital PSIP.

[47] We note that AT&T has claimed that its U-verse video service is not a "cable service" and thus is not subject to Cable Act requirements. While we disagree (*see* Part IV *infra.*), even if AT&T were correct and its IPTV video offering is a non-cable "information service," then the Commission would have to consider whether AT&T's discrimination against PEG violates the Commission's *Policy Statement*, 20 FCC Rcd 14986 (2005), as we believe it would. *See Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications*, Memorandum Opinion and Order, 23 FCC Rcd. 13028, 13050-51, at ¶ 41 (2008) (Internet provider's "network management practices [improperly] discriminate among applications and

(Continued . . .)

III. AT&T'S PEG PRODUCT FAILS TO PROVIDE "CHANNEL CAPACITY" FOR PEG USE WITHIN THE MEANING OF SECTION 611 OF THE ACT BECAUSE IT DOES NOT DELIVER "CHANNELS" WITHIN THE MEANING OF SECTION 602(4) OF THE ACT.

As noted above in Part II, Section 611 of the Cable Act enables franchising authorities to impose and to enforce requirements that cable operators provide "channel capacity" on their systems for PEG use. And as noted on pages 3-6 above, the franchising authority PEG Petitioners require cable operators to provide PEG channel capacity.

AT&T's PEG product, however, fails to provide such "channel capacity." The reason is that AT&T's PEG product does not provide PEG users with a "channel" within the meaning of the Act. Section 602(4) defines "cable channel" or "channel" as

> A portion of the electromagnetic frequency spectrum which is used in a cable system and *which is capable of delivering a television channel (as television channel is defined by the Commission by regulation).*

47 U.S.C. § 522(4) (emphasis added). Commission regulations, in turn, define a "television channel" as

> A band of frequencies 6 MHz wide in the television broadcast band and designated either by number or by the extreme lower and upper frequencies.

47 C.F.R. § 73.681. Included in a "television channel" are data signals in the VBI, or its metadata digital equivalent, that provide video-related information like closed captioning, timing and signal alignment information, and SAP. *See* 47 C.F.R. §§ 73.681 and 73.682(a)(22).

Unlike the case with broadcast and commercial cable video programming on its U-verse system, AT&T's PEG product does not deliver "channel" capacity within the meaning of

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(. . . continued)

protocols rather than treating all equally," & provider improperly "determines how it will route some connections based not on their destinations but on their contents").

Section 602(4). Because Section 602(4) requires provision of capacity that "*is capable* of delivering a television channel," it could be argued that, in a digital world or in an IPTV world, an operator may not need to provide 6 MHz for each channel. But even if that is true,[48] to provide the PEG "channel capacity" required by Section 611, AT&T's PEG product must still provide for each PEG channel it is required to carry the IPTV equivalent of a "channel" – in other words, what AT&T provides to local broadcast stations and commercial cable programming channels on its U-verse system.

AT&T's PEG product does not do that. As noted in Part I(A) above, PEG programming delivered over AT&T's U-verse system lacks the accessibility, functionality, viewability and signal quality of the "channels" that its U-verse system provides to broadcast stations and commercial cable programmers. And as noted in Part I(B) above, the reason that is so stems entirely from the fact that AT&T's PEG product delivers PEG video programming in a different, and technically inferior, way than it does other video programming.

To be a "channel," AT&T's U-verse must provide the 2.5 to 4 Mbps encoding speed that is required to deliver a standard definition channel, and 8 Mbps for any HD PEG programming. AT&T's PEG product, however, encodes PEG programming only at 1.25 Mbps, rather than the 2.5 to 4 Mbps required to deliver satisfactorily a standard definition TV channel. *See* Part I(B) *supra*. AT&T's PEG product also fails to pass through closed captioning and SAP information in PEG programming. In addition, unlike broadcast and commercial cable programming on the U-verse system, AT&T demotes PEG programming to a separate and lesser Internet-based video streaming application that must be independently loaded on AT&T's system, and thus, again

[48] *But see Implementation of Section 302 of the Telecommunications Act of 1996, Open Video Systems*, Second Report and Order, 11 FCC Rcd 18223, 18262 & n.163 (1996) ("Because there is no meaningful definition of a 'channel' in a digital world, bandwidth remains the only reasonable measure of capacity on the digital portion of an open video system").

unlike other programming, PEG programming must be reloaded for each viewing and enjoys virtually none of the STB program recording and control functions that other programming enjoys. *See* Part I *supra*.

Thus, in addition to discriminating unlawfully against PEG channel programming, AT&T's PEG product separate and independently violates Sections 611 and 602(4) of the Act by failing to provide and deliver PEG "channel capacity."

IV. COMMISSION RULES REQUIRE CABLE OPERATORS AND VIDEO PROGRAM DISTRIBUTORS TO PASS THROUGH ALL CLOSED CAPTIONING IN PROGRAMMING INTACT AND DO NOT AUTHORIZE VIDEO PROGRAM DISTRIBUTORS TO REQUIRE PROGRAMMERS TO DELIVER PROGRAMMING IN OPEN CAPTIONING RATHER THAN CLOSED CAPTIONING.

Although AT&T's U-verse system passes through closed captioning in television broadcast and commercial cable programming delivered to it, AT&T acknowledges that it cannot and does not provide any closed captioning via its PEG product, and that it is not able to pass through to viewers closed captioning in any PEG programming delivered to AT&T with closed captioning.[49] AT&T does claim, however, that its PEG product can pass through programming that is delivered to it with open captioning.[50]

"Open captioning" is "always-on" captioning that constantly blocks a portion of the picture despite the viewers' needs or desires with respect to captioning. Open captioning therefore interferes with viewing by subscribers who are not hearing impaired, and even with viewing by hearing-impaired viewers who do not wish to have captioning obscuring their view

[49] AT&T Statement at 6.

[50] *Id.*

of a portion of the picture.[51] For example, open captioning would obscure PEG programming that has important information on the bottom third of the screen, such as some educational programming provided by Petitioner De Anza.

The Commission should declare that the Act and Commission rules require cable operators and VPDs to deliver intact to viewers all closed captioning in PEG programs that such operators and VPDs receive in closed captioning from PEG programmers.[52]

A. Section 76.606 of the Commission's Rules Requires Cable Operators to Pass Through Closed Captioning in Any PEG Programming Delivered to Them.

Section 76.606 of the Commission's rules requires all cable operators to pass through closed captioning of any programming they receive with closed captioning.[53] The plain language of Section 76.606 clearly requires cable systems to deliver fully intact to viewers all closed captioning data to viewers in programming they receive from programmers:

> . . . the operator of each cable television system shall deliver intact closed captioning data contained on line 21 of the vertical blanking interval, as it arrives at the headend or from another origination source, to subscriber terminals and (when so delivered to the cable

[51] House PEG Hearing, 110th Cong. at 25 (2008) (testimony of Barbara Popovic, Exec. Dir., Chicago Access Network Television).

[52] We recognize that current FCC closed captioning complaint rules require complainants to first send the complaint to the responsible VPD before filing it with the FCC, 47 C.F.R. § 79.1(g)(1), although the Commission recently amended those rules to allow closed captioning complaints to be filed directly with the Commission, serving the responsible VPD, and those new rules will soon go into effect. *Closed Captioning of Video Programming*, Declaratory Ruling and Order, 74 Fed. Reg. 1594 (Jan. 13, 2009) (to be codified at 47 C.F.R. pt. 79). This Petition, however, is not a closed captioning complaint. It seeks no formal Commission forfeiture sanction or other remedy against AT&T's closed captioning practices; rather, it seeks a declaration from the Commission construing its closed captioning rules to make clear that cable operators and VPDs are required to pass through intact to viewers closed captioning in PEG programming they receive from programmers, and that the open-captioning provision of § 79.1(e)(2) does not alter or qualify the pass-through obligations of §§ 76.606 and 79.1(c). That such a declaration would necessarily mean that AT&T's PEG product currently violates those rules does not transform this Petition into a closed captioning complaint. On the contrary, the Petition's requested ruling on the Commission's closed captioning rules would apply to all cable operators and VPDs, not just AT&T.

[53] 47 C.F.R. § 76.606.

> system) in a format that can be recovered and displayed by decoders meeting Sec. 15.119 of this chapter.[54]

The intent of this rule is to guarantee that closed captioning provided to cable operators by programmers is passed through fully intact to viewers. In adopting this rule, the Commission expressed its belief that "the transmission and preservation of closed captioning data serves an important public interest and that cable systems should work with other interested parties to ensure that such data is neither degraded nor removed from a system's channels."[55] The Commission further noted that Congress intended, when adopting the Television Decoder Circuitry Act of 1990 (Pub. L. 101-431), codified at 47 U.S.C. §§ 303(u) & 330(b), to guarantee delivery of closed captioning data while allowing cable systems to use existing security techniques.[56]

As a cable operator, AT&T is required to pass through to viewers the closed captioning of any programming, including PEG programming, received with closed captioning. Section 76.606 of the Commission's rules contains *no* exceptions or exemptions, for open captioning or otherwise. Therefore, AT&T's PEG product violates Section 76.606 of the Commission's rules by failing to pass through to viewers closed captioning in PEG programming that it receives with closed captioning.

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[54] 47 C.F.R. § 76.606(b).

[55] *1992 Cable Technical Standards Order*, 7 FCC Rcd. at 2031.

[56] *Id.* at 2031-32, n 26 (citing House Report on the Television Decoder Circuitry Act of 1990 (Pub. L. 101-431), H.R. Rep. No. 767, 101st Cong., 2d Sess. (1990)).

B. Section 79.1(c) of the Commission Rules Requires All Video Program Distributors to Pass Through Closed Captioning in PEG Programming Delivered Them, and Section 79.1(e)(2) Does Not Authorize Video Program Distributors to Fail To Pass Through Closed Captioning.

Section 79.1(c) of the Commission's rules imposes obligations similar to those contained in Section 76.606 on all video programming distributors ("VPDs") rather than only cable operators:

> All video programming distributors shall deliver all programming received from the video programming owner or other origination source containing closed captioning to receiving television households with the original closed captioning data intact in a format that can be recovered and displayed by decoders meeting the standards of part 15 of this chapter. . . .[57]

AT&T, however, has claimed that its failure to pass through closed captioning in PEG programming does not violate Part 79 of the Commission's rules because it can pass through open captioning in PEG programming that PEG programmers deliver to it in open captioning and thus is protected by Section 79.1(e)(2).[58] Section 79.1(e)(2) provides that "[o]pen captioning or subtitles in the language of the target audience may be used in lieu of closed captioning."[59]

AT&T's reliance on Section 79.1(e)(2), however, is misplaced for at least three reasons: (1) AT&T is a "cable operator" and is therefore subject to Part 76 of the Commission's rules, which has no "open captioning" exception; (2) even if AT&T were not a "cable operator," the Section 79.1(e)(2) "open captioning" exception does not trump VPDs' absolute pass-through

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[57] 47 C.F.R. § 79.1(c). VPDs are defined as entities who provide video programming directly to a customer's home, regardless of the distribution technologies employed by such entities. Accordingly, broadcasters, cable operators, wireless cable operators, instructional television fixed service or local multipoint distribution service operators, satellite master antenna television service operators, direct broadcast satellite providers, direct-to-home satellite service providers, home satellite dish providers and open video system operators must comply with this rule. *Closed Captioning and Video Description of Video Programming*, Report and Order, 13 FCC Rcd. 3272, 3286 (1997) ("*1997 Closed Captioning Order*").

[58] AT&T's L.A. Letter at 3.

[59] 47 C.F.R. § 79.1(e)(2).

obligation under Section 79.1(c); and (3) Section 79.1(e)(2) cannot be read to permit a VPD to require programmers to suffer open captioning of their programming even though those programmers have closed captioned their programming.

1. AT&T is a Cable Operator, and Thus Section 76.606 of the Commission's Rules, Which Has No Open Captioning Exception, is Controlling with Respect to AT&T's Closed Captioning Pass Through Obligations.

AT&T is required, as a cable operator, to pass through all closed captioning received with programming. Part 76 of the Commission's rules, which includes the Section 76.606 closed captioning pass through requirement, applies specifically to cable operators and, unlike Part 79, contains no "open captioning" exception. While cable operators are also VPDs within the meaning of Part 79, the more generally applicable rules of Part 79, which apply to all VPDs, extend, but do *not* replace, the more specific captioning requirements of Section 76.606, which are directly applicable to cable operators. The Commission made clear its intent to extend, *not* replace, the requirements of Section 76.606 when adopting Part 79:

> *Thus, we will adopt and enforce a rule to ensure that captioned programming is always delivered to viewers complete and intact.* This rule, Section 79.1(c), is an extension of the existing provision of the cable rules [Section 76.606] that requires cable operators to deliver existing captions intact. Accordingly, video programming providers must pass through any captioning they receive that is included with the video programming they distribute . . .[60]

Section 76.606 applies to cable operators, independently of and in addition to, Part 79, and unlike Part 79, Part 76 contains no "open captioning" exception. Thus, unlike other VPDs, cable operators do not have the benefit of an "open captioning" exception under the Commission's rules. As a cable operator, AT&T must adhere to Part 76, including the closed

[60] *1997 Closed Captioned Order*, 13 FCC Rcd. at 3369.

captioning pass-through requirements. And AT&T's PEG product fails to do that with respect to PEG programming.

AT&T has argued elsewhere, however, that it does not provide cable service.[61] We presume it will therefore contend that it is a non-cable operator VPD subject only to Part 79, and not Part 76, of the Commission's rules.

AT&T is wrong: It does provide cable service and thus is a "cable operator."[62] The only court to address AT&T's argument that it is not a cable operator rejected it and ruled that, specifically with respect to U-verse, AT&T is a "cable operator" within the meaning of the Cable Act.[63] The court held that AT&T is a "cable operator" providing a "cable service" over a "cable system," as those terms are defined in the Cable Act.[64] Thus, AT&T's argument to the contrary is not only without merit but has been specifically rejected in a well-reasoned opinion by the only court to address it. AT&T is a "cable operator" and thus subject to the provisions of Section 76.606 of the Commission's rules. Therefore, even if § 79.1(e)(2)'s "open captioning" exception otherwise sanctioned AT&T's practice (and as we show below, it does not), as a cable operator AT&T cannot take advantage of that exception and must pass through all closed captioning received.

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[61] AT&T's Letter to FCC at 5-6.

[62] 47 U.S.C. § 521 et seq. "Cable Operator" is defined as "any person or group of persons (A) who provides cable service over a cable system and directly or through one or more affiliates owns a significant interest in such cable system, or (B) who otherwise controls or is responsible for, through any arrangement, the management and operation of such a cable system. 47 U.S.C. § 522(5). "Cable Service" is defined as: "(A) the one-way transmission to subscribers of (i) video programming, or (ii) other programming service, and (B) subscriber interaction, if any, which is required for the selection or use of such video programming or other programming service." 47 U.S.C. § 522(6). "Cable System" is defined as "a facility, consisting of a set of closed transmission paths and associated signal generation, reception, and control equipment that is designed to provide cable service which includes video programming and which is provided to multiple subscribers within a community...." 47 U.S.C. § 522(7).

[63] *Office of Consumer Counsel v. S. New Eng. Tel. Co.*, 515 F. Supp. 2d 269, *recon. denied*, 514 F. Supp. 2d 345 (D. Conn. 2007), *appeal pending* No. 09-0116 (2d Cir. filed Jan. 9, 2009).

[64] *Id.* at 282.

2. Even if AT&T Were Not a Cable Operator and Thus Not Subject to Part 76, the Part 79 "Open Captioning" Exception Does Not Absolve a Video Program Distributor of its Obligations under Section 79.1(c) to Pass Through Intact Closed Captioning It Receives from Programmers to Viewers.

Even if AT&T were not a "cable operator" but a VPD subject solely to Part 79 rather than Part 76, the Section 79.1(e)(2) "open captioning" exception does *not* exempt AT&T from its obligation under Section 79.1(c) to pass through intact to subscribers all closed captioning received from programmers. As the Commission is aware, its captioning rules impose obligations on most video programmers to close caption their programming, but also imposes an *independent* obligation on VPDs that are exercising editorial control to pass through closed captioning contained in programming that they choose to carry. The pass-through obligation of Section 79(c), read in context, applies to the latter situation.

The "open captioning" exception in Section 79(e)(2), in contrast, allows a programmer to "use" open captioning rather than closed captioning in its programming, and it also allows a VPD like AT&T to pass through in open captioning programming *that it receives* in open captioning. It does *not*, however, give a VPD like AT&T license to disable, or fail to pass through, closed captioning in programming that is delivered to the VPD with closed captioning. That is, Section 79.1(e)(2) does not absolve a VPD from its absolute Section 79.1(c) obligation to deliver "all programming received from the video programmer, owner or other origination source containing closed captioning to receiving television households with the original closed captioning data intact . . ." In its *1997 Closed Captioning Order*, the Commission stated:

> *[W]e will require distributors to pass through existing captions where the programming they distribute is received with captions* . . . . This requirement will not impose a burden on distributors, as all distributors have the technical ability to pass through captioning and it simply requires them to ensure that their technical facilities are in proper working order to pass through the

> captioning data. Thus, *all* video programming distributors will be required to deliver *all* programming they receive that contains closed captioning, regardless of the programming source, to consumers *with the captions intact.*[65]

The Commission went on to stress that "it [is] unacceptable that existing captions might fail to be transmitted in a complete and intact manner to consumers."[66] Thus, the closed captioning pass-through obligation of Section 79.1(c) is absolute; it is not trumped by § 79.1(e)(2).

The "open captioning" exception under § 79.1(e)(2) is intended primarily to provide relief for programmers, allowing them to use open captioning rather than closed captioning in producing programming. The rule then, out of necessity, also allows VPDs such as AT&T to pass programming *that they receive in open captioning* on to viewers in open captioning without having to convert it to closed captioning. Section 79.1(e)(2) is *not*, however, a license for VPDs to fail to pass through closed captioning in programming that *they receive in closed captioning*. In discussing the open captioning exception in § 79.1(e)(2), the Commission stressed that it was primarily for video programmers, and that it entitled video programmers and VPDs to *use* open captioning, *not* to replace pre-existing closed captioning with open captioning:

> We also will permit *video programmers* to count towards compliance with our rules any program that is open, rather than closed captioned. . . . Because this technique ensures the same accessibility as closed captioning, we will permit video programming providers and distributers to use open captioning.[67]

The Commission thus made clear its intention to allow distributors, such as AT&T, to count the pass-through in open captioning of the programming that they receive in open

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[65] *1997 Closed Captioning Order*, 13 FCC Rcd at 3312 (emphasis added).

[66] *Id.* at 3368.

[67] *Id.* at 3311 (emphasis added).

captioning from programmers toward meeting their quantitative captioning obligations under the rules.[68] The Commission did not, however, provide VPDs like AT&T the right to fail to pass through intact to subscribers closed captioning already contained in programming that they receive and replace it with open captioning instead. We do not believe, for instance, that the Commission would construe § 79.1(e)(2) as permitting VPDs to fail to deliver intact to subscribers closed captioning received in programming from local broadcast stations or commercial cable programmers and instead to deliver such programming to subscribers only in open captioning. The result can be no different with respect to PEG programming, as § 79.1(e)(2) draws no distinction between PEG and other programming.

Therefore, even if AT&T were not a "cable operator," § 79.1(c) requires it to pass through closed captioning received with PEG programming intact. Section 79.1(e)(2) does not permit AT&T to circumvent its obligations under § 79.1(c) to pass through *all* closed captioning received fully intact.

3. Section 79.1(e)(2) Does Not Allow a Video Program Distributor to Demand That If A Programmer Wishes to Caption Its Programming, It Must Open Caption and Not Close Caption That Programming.

The § 79.1(e)(2) open captioning provision permits "use[]" of open captioning in lieu of closed captioning. It says nothing about a VPD's pass-through obligation for programming that it receives in closed captioning. The § 79.1(e)(2) open-captioning provision cannot mean that a VPD may compel its supplying programmers, if those programmers wish their captioning to be delivered to viewers, to endure delivery of their closed captioned programming only in open captioning and *not* closed captioning. Yet that appears to be precisely what AT&T requires with

[68] *See* 47 C.F.R. § 79.1(b).

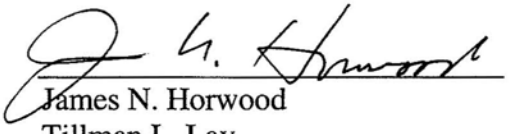
respect to captioned PEG programming. Permitting a VPD to compel programmers that have chosen to "use" closed captioning to provide open rather than closed captioning would fly directly into the face of the § 79.1(c) closed captioning pass-through obligation.

CONCLUSION

For the foregoing reasons, the Commission should grant this Petition and issue a declaratory ruling that:

1. AT&T's PEG product unlawfully discriminates against PEG programming and exercises editorial control over PEG channel capacity, in violation of the Cable Act and Commission rulings and policies;
2. AT&T's PEG product fails to provide PEG programming with "channel" capacity within the meaning of Sections 611 and 602(4) of the Act; and
3. Sections 76.606 and 79.1(c)(1) require a cable operator or VPD to pass through intact to subscribers all closed captioning in PEG programming, and Section 79.1(e)(2) does not allow a VPD to demand that, in order to caption its programming, a programmer must endure open captioning rather than closed captioning.

Respectfully submitted,



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January 30, 2009

CERTIFICATION PURSUANT TO 47 C.F.R. § 76.6(a)(4)

The below-signed signatory has read the foregoing Petition for Declaratory Ruling, and, to the best of my knowledge, information and belief formed after reasonable inquiry, it is well grounded in fact and is warranted by existing law or a good faith argument for the extension, modification or reversal of existing law; and it is not interposed for any improper purpose.

Respectfully submitted,

January 30, 2009

James N. Horwood
Spiegel McDiarmid LLP
1333 New Hampshire Avenue, N.W.
Suite 200
Washington, D.C. 20036

CERTIFICATE OF SERVICE

I hereby certify that I have on this 30th day of January, 2009, caused a true and correct copy of the foregoing Petition for Declaratory Ruling to be served on the following individuals via first class U. S. mail, postage prepaid:

D. Wayne Watts
Senior Executive V.P. and General Counsel
AT&T, Inc.
208 S. Akard St.
Dallas, TX 75202-2233

Paul K. Mancini
Senior V.P. and Assistant General Counsel
AT&T Services, Inc.
1120 20th Street, N.W.
Suite 1000
Washington, D.C.

James N. Horwood

List of Exhibits

Exhibit A	10/22/07 Letter to AT&T from M. Kantor of De Anza
Exhibit B	Declaration of Christopher Pearce
Exhibit C	Declaration of Dean Stone
Exhibit D	AT&T Program Guide Ad
Exhibit E	AT&T Fast Channel Change Ad
Exhibit F	AT&T PEG Programming Overview
Exhibit G	CTC Illinois NATOA Report

Exhibit A

October 22, 2007

Randy Okamura
Area Manager, External Affairs
AT&T
1 River Oaks Place, Room 1100
San Jose, CA 95134

Dear Randy,

Thank you for talking to me about De Anza's concerns which have resulted in our inability at this time to proceed with the AT&T U-verse installation. I followed up with Marty Kahn who oversees our cable television delivery and he provided me with the following information that you may wish to discuss with your superiors at AT&T. We are aware that AT&T's U-verse system has great promise and De Anza is interested in the opportunity to have our nationally known video courses delivered to our community via U-verse.

Regretfully, we chose to decline installation of the AT&T encoding package that would allow our signal to be carried on U-verse. There are three primary reasons. Each appears to be in violation of AT&T's franchise agreement, and each severely limits the usability of the programming for our students:

1) *The currently offered PEG (Public, Education and Government channels) encoding system does not support closed captioning.* De Anza College is required by the California Community Colleges Chancellor's Office to supply closed captioning for all video used for our courses, whether it be on television, the Web, or played back in a classroom. Please refer to http://www.htctu.fhda.edu/publications/guidelines/distance_ed/distedguidelines.pdf for a better understanding of the federal and state regulations with which all public California community colleges must comply.

2) *The image size is 320x240 QVGA.* The franchise agreement states, *"Each channel shall be capable of carrying a National Television System Committee (NTSC) television signal."* A 320-x240 image is one quarter the size and resolution of standard definition NTSC television, and a typical size that we use for webcasts.

3) PEG channels cannot be recorded by the AT&T supplied DVR. Our students rarely watch our televised courses live, as the technical nature of many of them requires repeated viewing. In addition, the majority of our distance-learning students are working adults, who are often not home when the program may air.

The three issues listed above draw a clear line separating the PEG channels from the commercial channels. It did not seem prudent at this time to take up the valuable time of AT&T's engineers, as well as De Anza's technical staff, to install the currently offered encoding package.

Over the course of several meetings, both in person and by phone, AT&T's engineers and our technical staff discussed these issues. Unfortunately, with no viable solutions proposed by AT&T, we chose to postpone installation until a resolution to the above issues could be provided.

We would welcome the opportunity to have De Anza's educational programming on the AT&T U-verse network. I trust that you will continue this conversation with your colleagues, in the hope of finding solutions to the above issues that would allow AT&T to activate our channel. If you would like to discuss these issues furthers, please feel free to contact me at any time and I would be happy to have Mr. Kahn join us for any further discussion.

Since these concerns affect all of our public community colleges, I have forwarded a copy of this letter to our Interim State Chancellor Dr. Woodruff, Executive Vice Chancellor and General Counsel Steve Bruckman and Assistant General Counsel Ralph Black, one of the most knowledgeable attorneys at the state level on this matter who can be reached via email or phone at rblack@cccco.edu or 916-445-4826.

Sincerely,

Martha J. Kanter

cc: Foothill-De Anza Board of Trustees
De Anza President Brian Murphy
Foothill President Judy Miner
De Anza Technology Resources Supervisor Marty Kahn
Interim State Chancellor Diane Woodruff
Executive Vice Chancellor and General Counsel Steve Bruckman
Assistant General Counsel Ralph Black

Exhibit B

DECLARATION

I, Christopher D. Pearce, do hereby declare and state under penalty of perjury as follows:

1. I am the Information Technology/Video Specialist for the Midpeninsula Community Media Center. My business address is 900 San Antonio Rd., Palo Alto, California 94303-4917. My telephone number is 650-494-8686.

2. The Media Center manages five public access channels serving Palo Alto and five surrounding jurisdictions. In my job I am responsible for support of the technology at the Media Center, including computer systems, the data network and video equipment both for production and cablecast. The Midpeninsula PEG channels are carried on the Comcast and AT&T U-verse cable systems. I am familiar with AT&T's U-verse system and how it carries PEG programming. There are two other PEG channels in our area, one is operated by the Foothill-DeAnza Community College District, which is on the Comcast system, but not on the AT&T U-verse system, and the other is operated by Stanford University.

3. My education background consists of a B.S. degree in Computer Science from the University of York in England. Prior to joining the Media Center, I spent 16 years working as a software engineer writing real-time, embedded system software for various devices including a professional non-linear video editing system, a digital video production switcher and a high speed data recorder.

4. I have read Section I.B of the foregoing Petition for Declaratory Ruling, and the factual information discussed in that section is accurate to the best of my knowledge, information and belief.

January 29th, 2009
Date

C. D. Pearce
Christopher D. Pearce

227155

Exhibit C

DECLARATION

I, Dean Stone, do hereby declare and state under penalty of perjury as follows:

1. I am the Owner and president of Spectaveris Inc. Spectaveris is a technology consulting company offering a wide range of resources, and expertise to the broadcasting and communications industries. The address of the company is 1411 LeMay Drive, Suite 406, Carrollton, TX 75007. The phone number is (972) 242-2682. The fax number is (972) 245-5948. The website is www.spectaveris.com.

2. Spectaveris Inc. provides consulting and integration services to provide excellence in technology assessment, work flow studies, return on investment studies, engineering, systems design, acoustical design, network security, and project management in the area of broadcast news, video production, software development, networking, satellite and microwave integration, and digital content management.

   Spectaveris Inc. serves or has served corporate clients such as Texas Instruments, Embarq, and American Eurocopter. Spectaveris also provides customized services to nonprofit organizations, municipalities, and educational facilities, to meet their specific needs.

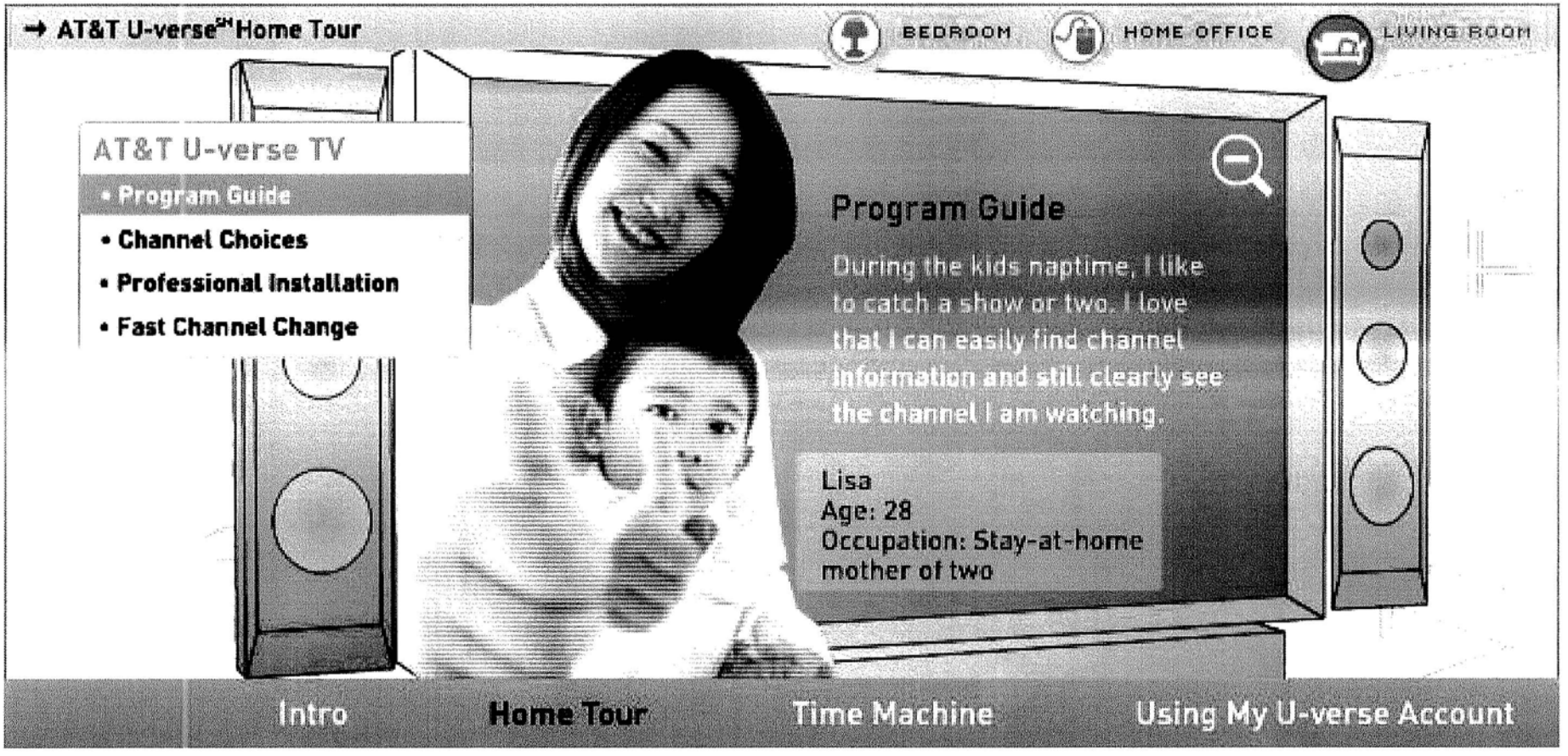
3. I have read the foregoing Petition for Declatory Ruling, and the factual information discussed therein is accurate to the best of my knowledge, information and belief.

1/29/2009
Date

Dean C Stone
Dean Stone

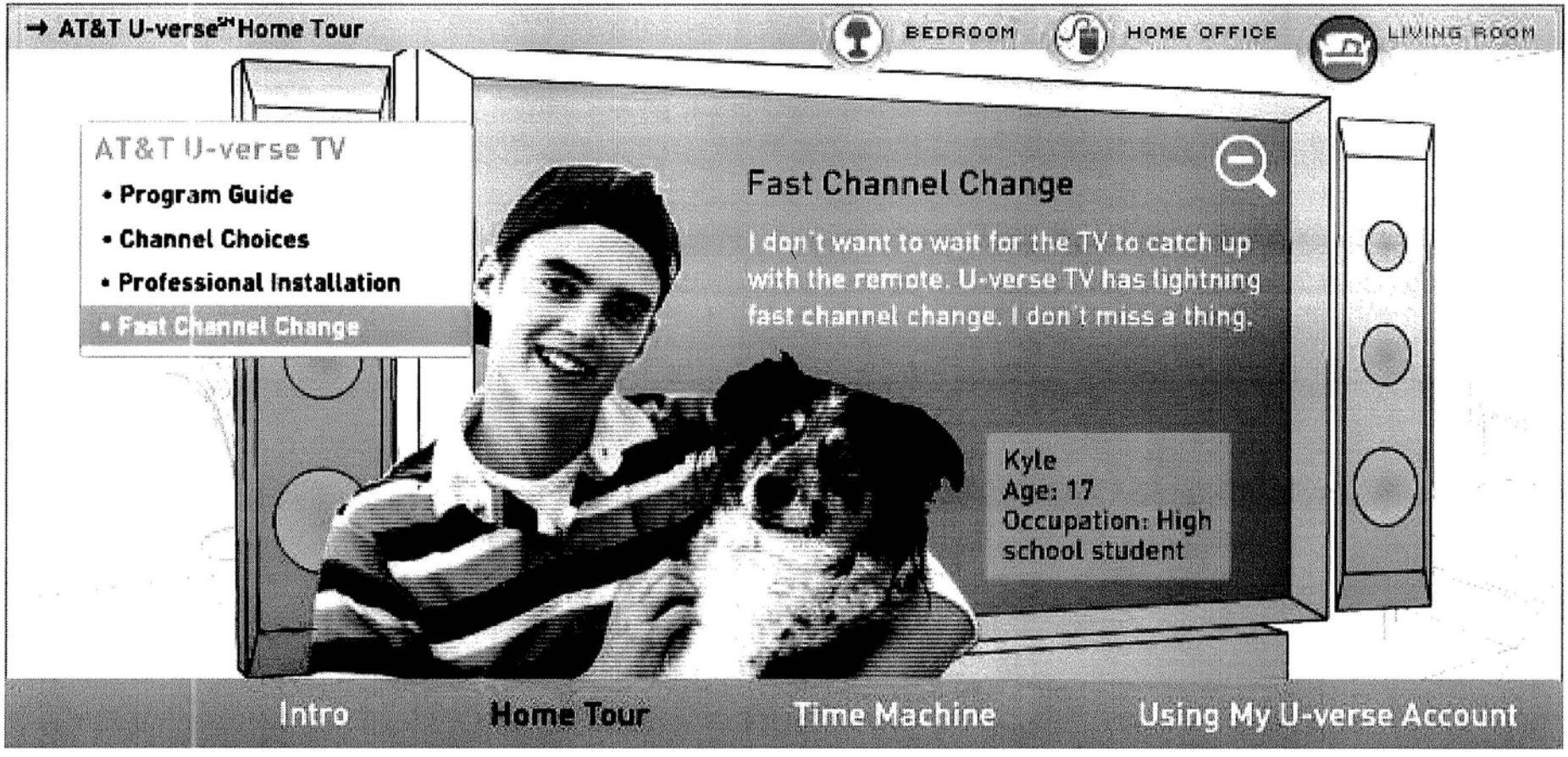
227155

Exhibit D


AT&T U-verse℠ Home Tour
BEDROOM
HOME OFFICE
LIVING ROOM
AT&T U-verse TV
• Program Guide
• Channel Choices
• Professional Installation
• Fast Channel Change
Program Guide
During the kids naptime, I like to catch a show or two. I love that I can easily find channel information and still clearly see the channel I am watching.
Lisa
Age: 28
Occupation: Stay-at-home mother of two
Intro
Home Tour
Time Machine
Using My U-verse Account

AT&T U-verse℠

Exhibit E


AT&T U-verse℠ Home Tour
BEDROOM
HOME OFFICE
LIVING ROOM
AT&T U-verse TV
• Program Guide
• Channel Choices
• Professional Installation
• Fast Channel Change
Fast Channel Change
I don't want to wait for the TV to catch up with the remote. U-verse TV has lightning fast channel change. I don't miss a thing.
Kyle
Age: 17
Occupation: High school student
Intro
Home Tour
Time Machine
Using My U-verse Account

AT&T U-verse℠

Exhibit F

PEG Programming Overview

AT&T U-verse[sm] TV

AT&T U-verse[SM] brings consumers a revolutionary new entertainment experience. AT&T is the only national provider to offer a 100-percent Internet Protocol (IP)-based video service, AT&T U-verse TV, which delivers a new level of service integration and features that are unmatched in the marketplace.

AT&T U-verse TV offers customers a compelling variety of TV and Internet packages to customize their entertainment experience. AT&T customers can choose from five basic TV packages – U100, U200, U300 and U400 – and a unique family-friendly programming package, U-family, which includes the best family-oriented TV channels.

AT&T's service also includes video-on-demand titles for all ages as well as offering a variety of flexible HD, movie, sports, and Spanish language programming options.

AT&T's PEG Solution

AT&T is committed to carrying Public, Educational and Governmental (PEG) programming over its AT&T U-verse TV service. Because AT&T's U-verse service is based on IP, AT&T will use IP streaming capability to deliver PEG channels.

AT&T will have no role in the acquisition or creation of the PEG content, nor will it exercise any production or editorial control over the content. The PEG programming provider will be responsible for all PEG content, including the acquiring of any appropriate rights and licenses necessary to allow transmission by AT&T throughout the designated market area (DMA) and ensuring viewer suitability of content.

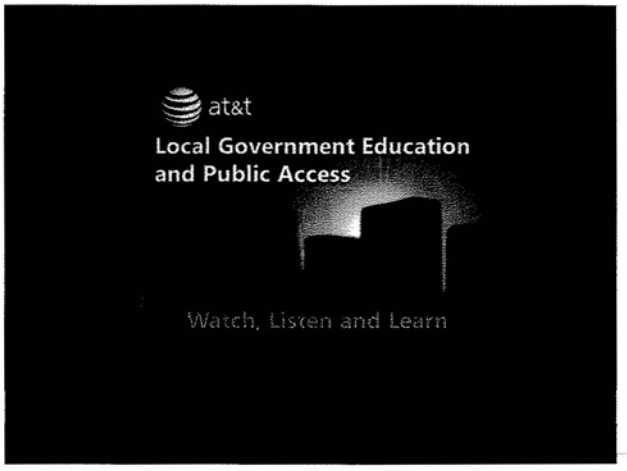
"Live PEG Streams"

PEG programming content must be converted to a streaming video signal for transmission on AT&T's U-verse platform. The format is Microsoft Windows Media 9, encoded at 1.25 Mbps per stream/channel with a resolution of 480x480. More detailed technical specifications will be provided upon request.

User Experience

AT&T U-verse TV's PEG service gives customers more choices – they can choose to watch programming provided by their own community as well as other participating communities within the surrounding area, or DMA. Similarly, a PEG provider's programming is available to not just customers within their own community, but to all AT&T U-verse TV customers in the DMA.

AT&T has designated Channel 99 as the location on its U-verse channel guide dedicated exclusively to PEG programming. Customers can access the PEG application in a number of ways: by selecting "Government, Education and Public Access" from the "Live TV" section of the Main Menu; by accessing the "Guide" and scrolling to Channel 99; or simply by entering "99" on the remote control.

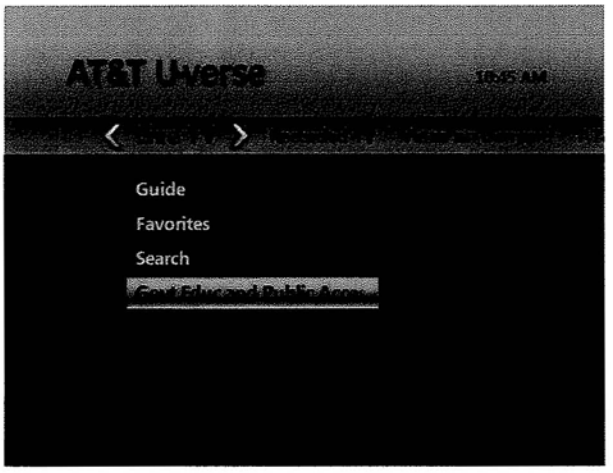


Description: Channel 99 on AT&T U-verse TV

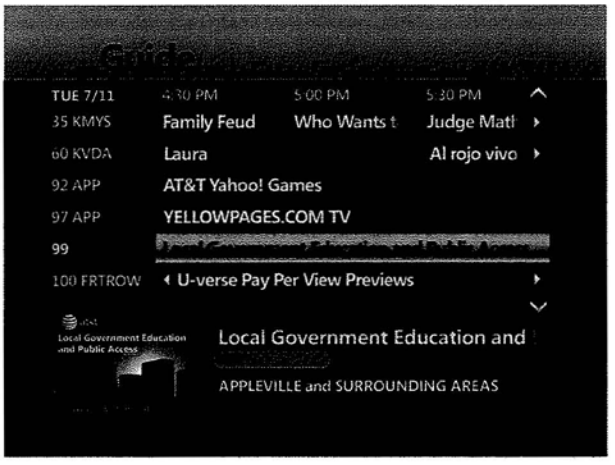
Once a customer starts the PEG application, they will be presented with a screen that lists the communities providing PEG programming throughout the DMA.

Screen Samples

The following are samples of U-verse PEG screens. Customers can access Channel 99 in several ways.

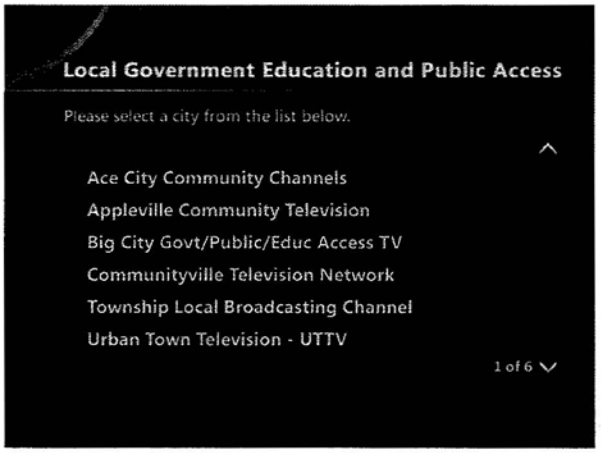


Description: AT&T U-verse Main Menu – Live TV



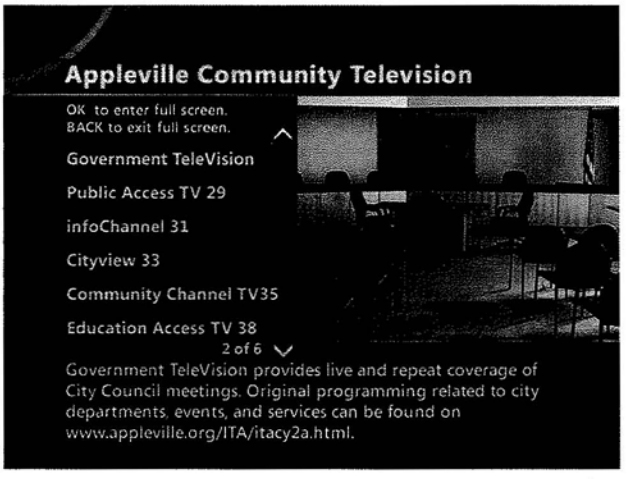
Description: AT&T U-verse Program Guide

After launching the PEG application, U-verse TV will display a list of communities offering PEG programming.



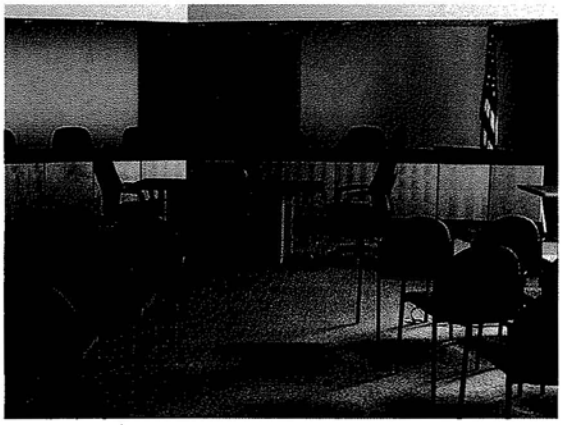
Description: AT&T's PEG application lists all communities offering PEG programming in a DMA

Upon selection of a community, U-verse TV will list all the channels offered by that community as well as display live programming in a preview screen along with a description of the selected channel.



Description: Listing of available channels and preview screen for a particular community

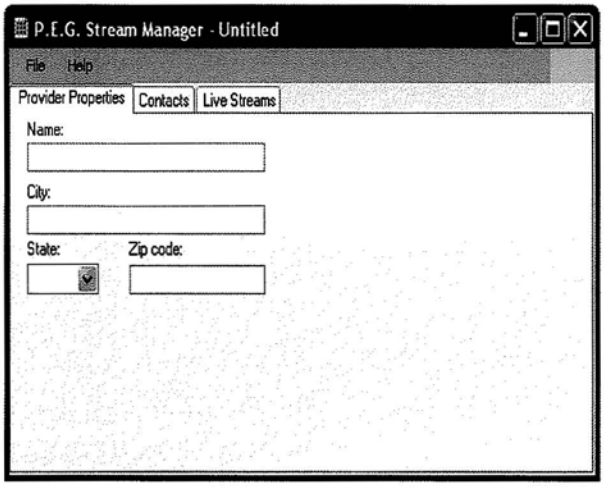
PEG programming can be viewed in the preview screen, or enlarged to a full-screen view.



Description: Full screen view of PEG programming

User Interface

AT&T will provide an administrative software tool to allow the PEG programming provider to create naming and descriptions for each PEG channel.



Description: Administrative screen used for naming and description

Exhibit G

Illinois Chapter of the
National Association of Telecommunications
Officers and Advisors (ILNATOA)

Delivery of PEG Programming at Commercial Quality

September 2, 2008

Columbia Telecommunications Corporation • 10613 Concord Street • Kensington, MD 20895
301.933.1488 • www.CTCnet.us

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1 Overview and Methodology

The purpose of this report is to determine whether public, educational and government (PEG) programming over the AT&T video system can be delivered with comparable quality and functionality to those of commercial channels.

Whether the programming source for a video channel is a PEG studio, an off-air broadcast, or a commercial network satellite downlink, a systemic disparity in delivery quality between PEG and commercial channels results from dissimilar technologies or configurations employed for these two categories of services – there is no fundamental technical difference between a video signal with commercial advertisements and one without.

Furthermore, one of the key advantages to a fully Internet Protocol (IP) based video delivery network is the ability to provide a virtually limitless quantity of video channels with control over access and viewer experience at a level of granularity down to the individual subscriber, or any broader subset. This can include anything from unique channel line-ups to customized on-screen advertisements.

The primary strategy we recommend for achieving comparable quality and functionality for PEG program delivery is to replace or reconfigure systems and components currently used for PEG delivery with components and configurations equivalent to those used for commercial channels. This recommendation is necessary to address technical limitations in the design of the current AT&T PEG solution to the extent that they contribute to the degraded quality, functionality, and presentation of these channels.

Much of the detailed information about the specific design and operation of the AT&T system has not been made publicly available. Where there is not sufficient detailed technical information available to specify particular configurations or components, this document refers to the capabilities of systems successfully providing similar Internet Protocol (IP) based video delivery functionality.

This document separates the discussion of delivery and presentation of the PEG channels into four separate functional components:

- Encoding (conversion) of PEG video to an IP digital format
- Transmission of signal from the PEG center to AT&T's system
- Insertion of PEG signals into AT&T programming lineup
- Transmission of PEG programming to AT&T customers

Note that the discussion of "video quality" in this document relates only to the upper limit possible from the current systems used to carry PEG signals on the AT&T network, which is not affected by the quality of recorded content or studio systems comprising the PEG source material. Whether for a commercial or PEG channel, we recognize that the diagnosis and resolution of isolated video quality problems is complex and not always caused by the subscriber delivery network.

2 Encoding of PEG Video

PEG channels can be encoded at the same quality as commercial channels.

One of the most significant factors determining the quality of the PEG signal is the technical format used for encoding and compressing the PEG origination signals. The encoding format must be selected so that the picture resolution, color, motion reproduction, and other observable features of the programming are not noticeably changed by the process. Depending on the format of the programming material at the PEG source, which ranges from analog video to uncompressed digital streams, this encoding step may involve an initial conversion of the signal to a digital format (digitization) or changing the signal to a different digital format (transcoding). Regardless, according to AT&T specifications, the net result is a digitally compressed signal leveraging the Windows Media Video 9 (WMV 9) format, currently using a total encoding data rate (video and audio) of 1.25 Mbps[1].

It is not known exactly what encoding or transcoding equipment is used for commercial channels carried on the AT&T system. The typical studio environment for standard definition broadcast television uses the serial digital interface (SDI) standard with D1 screen resolution or (720 x 480), though many digital encoding processes in a typical studio environment use resolutions of 640 x 480, as it effectively reproduces the 4:3 aspect ratio of standard definition video. Using lower resolution encoding will result in a degraded picture. This is evident when an NTSC program is recorded to a VHS video tape.

Therefore, the recommended approach is to encode PEG origination signals at a resolution of 640 x 480 (or 720 x 480), equivalent to that of a typical professional standard definition studio environment. A wide range of products exist that support WMV 9 encoding at a range of bit rates, frame rates, and resolutions. For example, the Inlet Technologies Spinnaker 3005 (recommended by AT&T[2]), and the VBrick WM Appliance will both support WMV 9 Main Profile encoding at bit rates at or above 4 Mbps.

Most encoders have selectable resolution, buffering, output bandwidth and other parameters. Again, the ideal approach would be to select settings and equipment that have been demonstrated to provide the quality of the commercial programs.

---

[1] AT&T provides supported encoding specifications in their "PEG Equipment & Transport Information" version 7 document

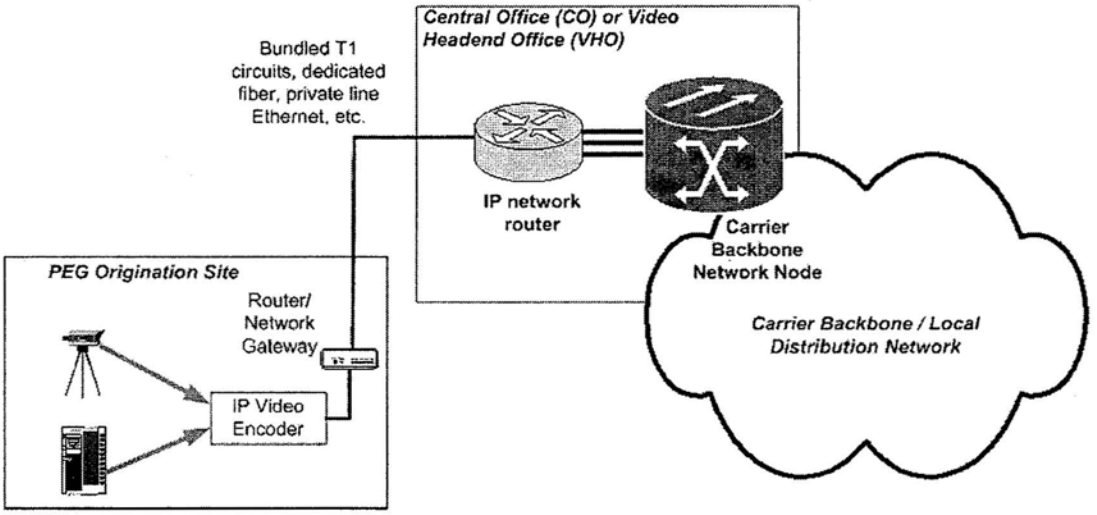
[2] The Inlet Spinnaker 3005 is an encoding appliance specifically identified by AT&T in their "PEG Equipment & Transport Information" version 7 document.

3 Transport of PEG Video

Technology to preserve the quality of PEG audio and video signals while in transit to the AT&T network is readily available.

Once the video is encoded into a digital format suitable for IP-based transmission, it is transported to AT&T's system, either over dedicated data circuits or the Internet (Figure 1). It is important that the capacity and quality of the entire link between the PEG origination location and the point of "insertion" into the AT&T video distribution systems preserves the quality of the video signal. No matter what technology is used, the link used to transport the video must be of sufficient bandwidth to accommodate the video created by the encoder—the capacity requirement is dictated by the encoding.

Figure 1: PEG Origination Uplink



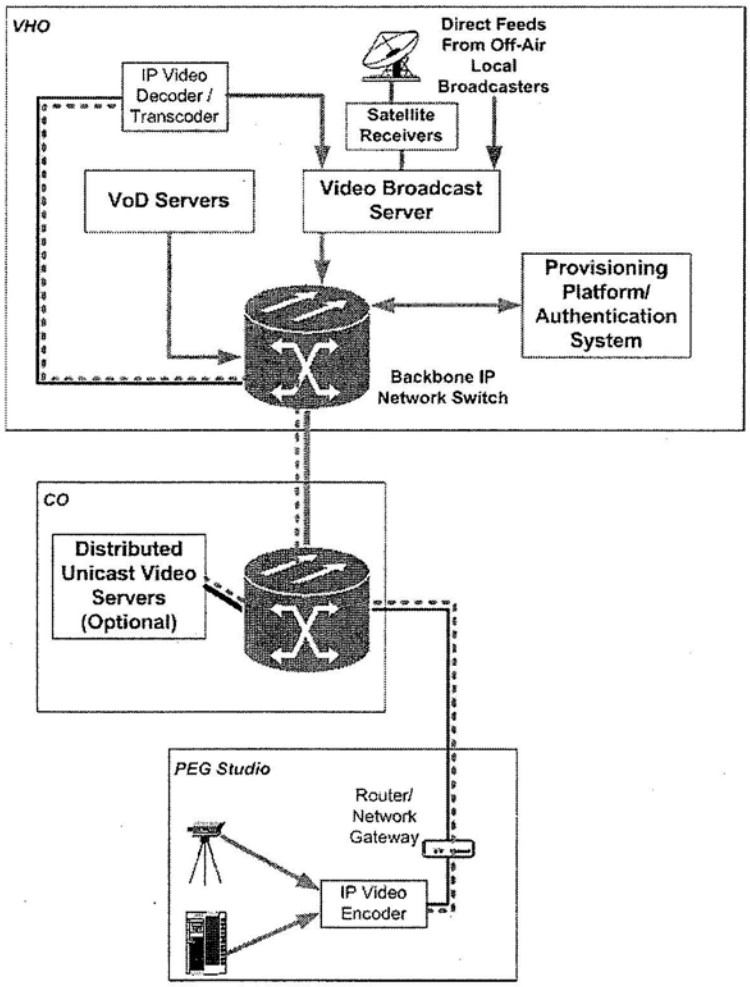
In other words, if the encoder generates a video stream of 3 megabits per second (Mbps) when it is configured for the necessary resolution and quality, then the link must have more than 3 Mbps available at all times for each video link. There are many strategies to guarantee that the transmission link preserves picture quality. One is to establish a dedicated circuit of sufficient capacity from the origination point to the video headend. This is a technique commonly used by cable operators and also by Verizon in its video systems. Other techniques include using "quality of service" (QoS) mechanisms that prioritize certain types of traffic, including video, relative to other traffic to ensure that sufficient capacity remains available even when multipurpose backbone links are heavily saturated.

4 Insertion of PEG Video into the AT&T Programming Lineup

PEG channels need not be inserted into the program lineup in a manner different from commercial channels.

Insertion of video programming into an IP-based delivery system is fundamentally different than a traditional cable system. A traditional cable signal physically "inserts" signals by modulating onto various carrier frequencies and combining these modulated signals. An IP delivery system only re-transmits the encoded origination signal, either in its native format or a transcoded version in which the type of encoding, bit rate, or other parameter is modified prior to re-transmitting to subscribers. Typically video broadcast servers are used to generate individual streams for each user, or the server can transmit a single multicast stream (discussed further in Section 5).

Figure 2: PEG Channel "Insertion"



In order to preserve picture quality, the PEG programming must be available to the AT&T broadcast servers in the same manner that the commercial programs are available.

Generally, in IP video systems, these broadcast video servers receive streams from their sources (studios, satellite downlinks, antenna feeds) and "host" the available channels in the same manner that Internet Web sites host the content on their sites. Parameters on the server should be set so that the PEG programming is treated in the same manner as commercial programming.

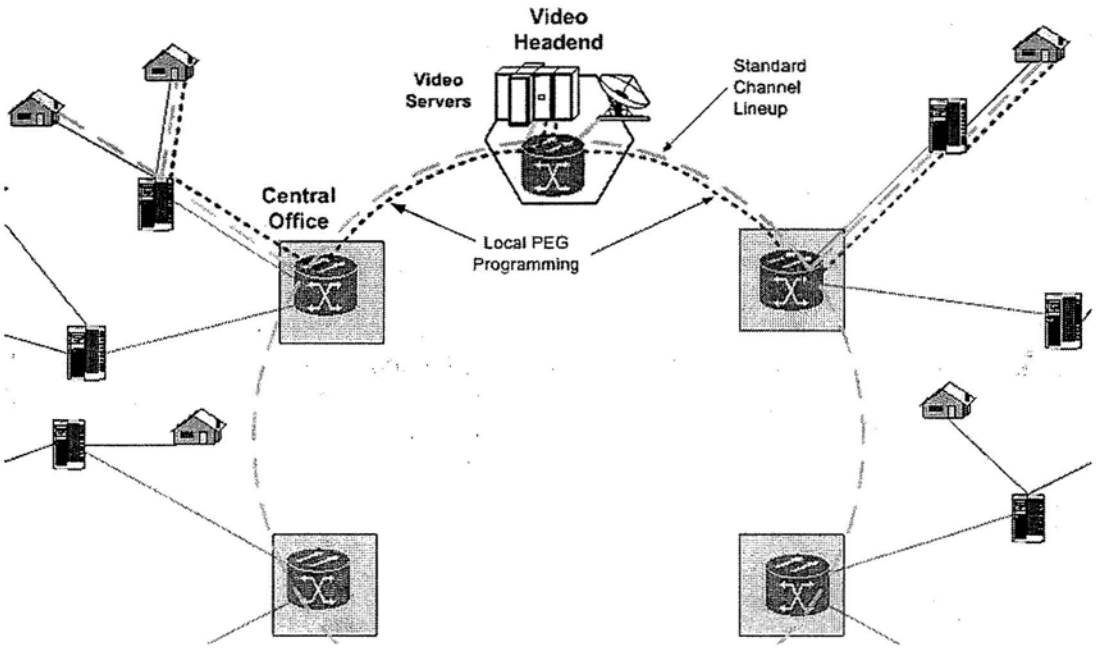
5 Transmission of AT&T Programming to Viewers

IP-based video technologies offer greater flexibility to localize channel lineups, not less.

Video delivery systems built entirely on IP-based transmission, including AT&T's U-verse, are organized differently from traditional cable systems. In a traditional cable system, the programming channels are "combined" into a channel lineup and sent in a cable to the subscribers. Any change to the channel line-up downstream of this insertion involves a physical process of filtering and inserting a new signal in a particular (physical) channel. The channel number indicates the placement of the programming in frequency (in analog systems) or the location in the cable channel lineup where the set-top converter knows to find the signal.

In an IP system, the programming is streamed from network servers at the video headend, or at some intermediate location, and the viewer selects the programming from their set-top converter. The server at the headend then streams the requested program to the set-top box. Each viewer receives exactly one discrete video signal corresponding to the channel requested. This model is more analogous to a "unicast" delivery in response to a request for a web page from a web browser. This differs from traditional cable services, in which all channels are physically broadcast and delivered to every viewer simultaneously – the television or set-top box only displays the "tuned" channel in this case. There is no concept of physical "channels" in an IP video delivery system.

Figure 3: IP Video Delivery to Subscribers



The benefit of IP-based video delivery is further realized relative to the ability to localize channel line-ups. Through the use of IP multicast technology, the network devices (switches and routers) downstream of the servers can make "copies" of the video streams on an as-needed basis, while filtering or "pruning" streams not "requested" by set-top boxes within portions of the network to reduce overall network capacity required. This creates highly deterministic capacity demand over local and backbone segments of the network, not impacted by the total number of "channels" available to subscribers. Even without the use of multicasting, distributed IP video broadcast servers can provide the same effective result from a network access and capacity perspective, bringing the ability to serve "unicast" copies of individual streams to viewers closer to the edges of the network (at least down to the Central Office level). Moreover, since only the channels requested by the set-top box will be streamed, the ability to support nearly unlimited quantity of channels either in a centralized or distributed architecture exists.

Which channels can be requested by a set-top box is determined strictly by access policies associated with the unique authentication and provisioning of each unit. Provisioning of set-top boxes involves the conditional enforcement of access policies by authentication systems that perform lookups on one or more databases of subscriber information. These databases map technical set-top box identification to subscriber information, such as the subscribed service package and billing status. Based on this provisioning, it would be possible to filter, or conditionally populate the "channels" listed in the interactive program guide to only include those channels to which a customer subscribes.

In other words, since the network relies on the ability to uniquely address and control each set-top box, it is possible to generate a custom channel line-up and numbering scheme for any subset of subscribers. Just as "premium" on-demand content is billed on an individual subscriber basis, the access to PEG channels can be individually controlled and authorized. In the case of PEG, this may mean that a different group of channels are listed in the program guide, of which each point to different video server stream addresses (channels), depending upon some particular field within the authentication/provisioning database relating to location. For example, it would be feasible to create a custom channel lineup associated with the billing zip code for a particular set-top box. Note that this would not be true in a traditional cable system, even with interactive addressable set-top boxes, since the flexibility to create custom line-ups is ultimately limited by the number of channels supported within the capacity of the subscriber connection.

Therefore, flexibility in channel lineup control and quantity of channels is increased because of AT&T's IP-based architecture, rather than it being a limiting factor. Despite having more centralized core systems supporting larger geographic areas than with a traditional cable system, an IP-based delivery system does not require delivering all channels to all locations. As mentioned, regardless of the number of channels, only those "requested" by the set-top box are transmitted to the viewer. Channels are essentially addresses within an IP-based server architecture (i.e. a web address, or URL); a channel in an IP-based delivery system does not represent a specific frequency space or constant amount of capacity between the provider and the subscriber, as in a traditional cable system.

6 Summary

It is technologically possible to deliver public, educational, and government (PEG) programming over the AT&T video system with comparable quality and functionality to the commercial channels. Moreover, in the State of Illinois, it is a statutory requirement for any operator of cable television or video programming services[3].

This report has reached that conclusion based on the following findings:

- PEG channels can be encoded at the same quality as commercial channels;
- Technology to preserve the quality of PEG audio and video signals while in transit to the AT&T network is readily available;
- PEG channels need not be inserted into the program lineup in a manner different from commercial channels; and
- IP-based video technologies offer greater, not less, flexibility to localize channel line ups.

[3]State of Illinois Cable and Video Competition Law of 2007, 220 ILCS 5/21-601(c)